A large satellite dish antenna is the central focus, mounted on a complex metal lattice structure. The dish is illuminated from below, casting a warm glow. The background features a dramatic sunset with orange and yellow hues on the horizon, transitioning to a darker blue sky. In the foreground, there are some smaller structures and lights, possibly part of the facility's infrastructure. The overall scene conveys a sense of technological advancement and scientific observation.

JOINT USERS RESOURCE ALLOCATION PLANNING (JURAP) MEETING

APRIL 18, 2002



May 10, 2002

Refer to: 930-02-006-ESB:lc

TO: Distribution

FROM: Eugene S. Burke

SUBJECT: Minutes for the Joint Users Resource Allocation Planning Committee Meeting held April 18, 2001.

NEXT JURAP MEETING:

Thursday, May 16, 2002
JPL Bldg. 303, Room 411 – 1:00 p.m.

Attendees:

R. Bartoo	D. Holmes	B. Mase	J. Valencia
G. Burke	K. Kim	D. Morris	S. Waldherr
B. Compton	N. Lacey	A. O'Dea	B. Yetter
J. Cucchissi	A. Landon	M. Slade	
D. Doody	S. Lineaweaver	M. Ryan	
J. Hall	M. Marina	P. Tay	
A. Haldermann	K. Martinez	B. Toyoshima	

The Joint Users Resource Allocation Planning Committee meets monthly to review the status of Flight Projects, the requirements of other resource users, and to identify future requirements and outstanding conflicts.

Introductory Remarks – G. Burke

Gene chaired the meeting and welcomed the attending mission representatives to the April JURAP.

RARB Action Items – D. Morris

David Morris summarized the Action Items (AI) from the February 2002 Resource Allocation Review Board (RARB) meeting. Nap Lacey worked with Pamela Wolken to close AI No.3. Mike Wert has provided a response to close AI No 5.

Resource Analysis Team – N. Lacey

Testing and training of MADB/TIGRAS is ongoing. Special studies of MEX, LUNAR-A, Messenger and Cassini are in progress. Major Antenna Downtime re-planning and Mid-Range Schedule Development are ongoing. Weeks 23-26 were released to the DSN on March 21, 2002. Week 27 will be released April 01, 2002, and Weeks 39-42 will start negotiations on March 22, 2002.

DSS Downtime Forecast – J. Valencia

There are a number of significant changes to the DSN Major Antenna Downtime schedule. The changes include moving the DSS-14, DSS-54, and DSS-45 NSP task from 2002 into 2003, the rescheduling of the DSS-24 Ka-band encoder task, and deleting the DSS-15 Antenna Controller Replacement from 2003. In addition, downtimes for the DSS-43 regROUT work, and DSS-45 HVAC (Heating Ventilation and Air Conditioning) tasks, were added to the 2002 downtime schedule. Other changes that are currently in review are the re-planning of the DSS-46 Servo Drive from Week 17-20 to Week 30-35 in 2003, and rescheduling the DSS-15 NSP from April to January 2003.

JURAP Resource Allocation Review for April-May 2003 – J. Valencia

A special review of the DSN resource allocation for April – May 2003, addressing significant changes to the Network Simplification Project (NSP) implementation schedule was conducted. The special review focus was on resolving contentions caused by the proposed re-planning of DSS-14, DSS-45, and DSS-54 NSP from 2002 into 2003. Issues discussed at the review were proposed changes to the Major DSN Downtime schedule, periods of contention, significant events, RAPSO analysis and recommendations. The review went well and met all objectives. The Projects provided prompt affirmative responses to all of the RAPSO recommendations. Project representatives for Ulysses and SIRTf were unable to attend the meeting, and were given a time extension for their responses and recommendations.

Goldstone Solar System Radar – M. Slade

DSS-14 successfully supported observations of Near-Earth Asteroid 2002 GDS in March, and GSSR conducted radar imaging of Near-Earth Asteroid 2002 FD6 in April 2002. An article describing the probability (1/300) of the first Near-Earth Asteroid colliding with Earth was published in the April 2002 issue of the journal, SCIENCE.

Radio Astronomy / Special Activities – G. Martinez

The DSN continues to meet support requirements. Two Time Earth Motion Precision Observation (TEMPO) activities were supported in March with no reported data loss. Two CAT M&E activities were supported in March, with 98% of data time utilized. In addition, the DSN supported Space Geodesy Program's (SGP) European experiment, with 94% of the data time utilized.

FLIGHT PROJECTS REPORTS***Chandra – K. Gage***

The DSS-54 NSP downtime has moved from 2002 to 2003. The Project requests restoration of DSS-54 support in weeks 43 – 47 of 2002. At the February 2001 RARB, this support was negotiated to use DSS-66.

Voyager – J. Hall

Voyager 1 and Voyager 2's operational status is nominal and the DSN support is good. A hardware problem with the DSN's low power transmitter forced the use of the high power transmitter during the March and early April support. Voyager 1's heliocentric distance is 84.4 Astronomical Units (AU), with a round-trip-light-time (RTLTL) of approximately 23h 15m. Voyager 2 heliocentric distance is 66.8 AU, with RTLTL of approximately 18h 30m.

Cassini – D. Doody

Operations are essentially nominal. Minor spacecraft instrument anomalies and recovery are solved in near real time. On April 3, 2002, the DSN successfully supported Main Engine TCM-18. The Cassini Network Operations Project Engineer (NOPE) was replaced during Cassini's TCM-18. Replacement of key operations support personnel during high-level support activity must be better planned. Cassini Project representatives met with the NOPE, Radio Science, and Telecom engineers to discuss and identify the probable cause of failed Uplink Transfers during GWE-1 DSN support.

MAP, ACE, and IMAGE – S. Waldherr

MAP, ACE and IMAGE spacecraft operations are nominal with no DSN ground support problems reported.

Ulysses – Michelle Medina (for B. Brymer)

Spacecraft operations are nominal. Ulysses is in continuous view from the northern hemisphere and cannot be viewed from the southern hemisphere. Spacecraft reconfigurations and instrument calibrations are performed as required and Earth pointing maneuvers are performed every four days. Three significant Discrepancy Reports were written during this reporting period.

Galileo – Michelle Medina (for B. Compton)

Galileo routine activities include propulsion maintenance activities, and gyro performance tests. Significant events include the completion of final SSI, NIMS calibrations, and encounter I-33 playback that ends remote sensing for the Project. During a routine DMS conditioning, the tape stopped and the DMS fault protection was tripped. Real-time commands were sent to unlock and move the tape. The tape moved, but did not synchronize properly. In addition, high motor current values were seen. The problem continues to be investigated.

Reports not presented this month:

DSN Operations – J. Hodder

Stardust – R. Ryan

Genesis – E. Hirst

ISTP, WIND, POLAR, SOHO, GEOTAIL, Cluster II – A. Chang

Mars Mission Management Office (MMO) – E. Brower

The next JURAP meeting will be held:

**Thursday, May 16, 2002, at JPL
in Bldg. 303, Room 411, at 1:00 p.m.**

Note: Teleconference number: (818) 354-2626

JURAP Resource Allocation Review for April – May 2003

Contention Resolution Minutes

2003 – Contention Period - April – Weeks 14 -17

- A. DSS-14 has downtime for NSP implementation in Weeks 17 – 20. To accommodate the downtime, GBRA, Galileo, MAP, SOHO, STF, Voyager 1, and Maintenance have all agreed to accept the RAPSO recommendations listed below:

Item No.

Recommendations

1. DSS will delete DSS-14 Maintenance support in Week 17.
 2. GBRA agreed to change the 70m M-Wave Spect support in Week 17 to DSS-43, 63, and reduce to two supports per week. GBRA agreed to delete Planet R/AST in Week 17.
 3. Galileo agreed to change the 70m routine support in Week 17 to DSS-43, 63.
 4. MAP agreed to change the 70m routine and Maneuver supports in Week 17 to DSS-43, 63.
 5. SOHO agreed to change the DSS-14 TSO support in Week 17 to DSS-15 (D/L only).
 6. Ulysses DSS-14 routine support in Week 17 will move to DSS-15 (D/L only).
 7. Voyager 1 agreed to change DSS-14, and 63 routine support in Week 17 to DSS-63. Voyager 1 agreed to change the 70m routine uplink support in Week 17 to DSS-43, 63.
- B. DSS-45 has downtime for NSP implementation in Weeks 15 – 18. To accommodate the downtime, Cassini, Cluster, GBRA, Maintenance, MGS, SGP, Stardust, and STF have all agreed to the RAPSO recommendations listed below:
8. Cassini agreed to change DSS-45, 25 TCM support in Weeks 15 – 17 to DSS-34, 25. Cassini agreed to change DSS-45 routine support in Week 15 to DSS-25.
 9. CLU2 agreed to change DSS-34/45/43 SSO support in Weeks 15 - 17 to DSS-34/43. CLU2 agreed to change DSS-34/45/43 MSO support in Week 17 to DSS-34/43.
 10. DSS-45 will delete Maintenance support in Weeks 15 – 17.
 11. GBRA agreed to move DSS-45 Host Country support in Week 17 to Week 14.

JURAP Resource Allocation Review for April – May 2003

Contention Resolution Minutes

12. MGS agreed to change 34H Map/Beta support in Week 17 to DSS-15, 34, 65.
 13. SGP Crust Dyn agreed to move DSS-45 W-M4 support in Weeks 15 and 16 to Weeks 37 and 38.
 14. Stardust agreed to change DSS-45, 65 routine support in Weeks 14 – 17 to DSS-15, 65.
 15. STF agreed to change DSS-45, 65 routine support in Weeks 15 – 17 to DSS-15, 65.
- C. DSS-54 has downtime for NSP implementation in Weeks 17 – 20. To accommodate the downtime, CHDR, Image, STF, M01O Mapping, and Wind have all agreed to accept the RAPSO recommendations as listed below:
16. CHDR agreed to change the 34B1 routine support in Week 17 to DSS-24, 34, 66.
 17. DSS-54 agreed to delete Maintenance support in Week 17.
 18. Genesis agreed to change the 34B1 routine support in Week 17, to DSS-24, 34.
 19. IMAGE agreed to change the 34B1 routine support in Week 17, to DSS-24, 34.
 20. Mars Odyssey agreed to change the DSS-25, 34, 54 Mapping support in Week 17, to DSS-25, 34, 65.
 21. WIND agreed to change the 34B1 routine support in Week 17, to DSS-24, 34.
 22. STF agreed to change DSS-25, 34, 54 routine support in Week 17, to DSS-25, 34, 63.

JURAP Resource Allocation Review for April – May 2003

Contention Resolution Minutes

2003 – Contention Period - May – Weeks 18 –22

- A. DSS-14 has downtime for NSP implementation in Weeks 17 – 20. To accommodate the downtime, Galileo, Maintenance, GBRA, GPB, GSSR, MAP, MEGA, and Voyager 1 have all agreed to accept the RAPSO recommendations as listed below:

Item No.

Recommendations

1. DSN will change 70m Antenna Cals in Week 18 and 19 to DSS-43, 63.
2. DSS-14 will delete routine and bearing Maintenance supports in Weeks 18 and 19, and will delete one routine maintenance in Week 20 (Monday).
3. GBRA agreed to change the 70m M-Wave Spect support in Week 18 and 19 to DSS-43, 63 and to reduce support to two per week. GBRA agreed to delete Planet R/AST support in Week 18 and 14. GBRA agreed to move DSS-14/63 SOC-M4 support in Week 19 to Week 20.
4. Galileo agreed to change the 70m routine support in Weeks 18 and 19 to DSS-43, 63.
5. Gravity Probe B agreed to move DSS-14, 12-hour support; DSS-63, 8-hour support; and DSS-43, 6.5 hour support in Week 19 to Week 20.
6. GSSR agreed to delete DSS-14/15 GODR support in Week 19.
7. MAP agreed to change the routine 70m support in Weeks 18 and 19 to DSS-43, 63.
8. MEGA agreed to change the 70m routine support in Week 19 to DSS-43, 63.
9. Ulysses DSS-14 routine support in Week 18 and 19 move to DSS-15 D/L only.
10. Voyager 1 agreed to change the 70m routine uplink support in Weeks 18 and 19 to DSS-43, 63. Voyager 1 agreed to change DSS-14 ASCAL support in Week 19 to DSS-15. Voyager 1 agreed to delete the DSS14/15, 14/26 DTR Array support in Week 18. Voyager 1 agreed to change the DSS-14 MAGROL support in Week 19 to DSS-15.

- B. DSS-45 has downtime for NSP implementation in Weeks 17– 20. To accommodate the downtime, Cassini, Maintenance, Cluster, MGS, and Stardust, have all agreed to accept the RAPSO recommendations listed below:

JURAP Resource Allocation Review for April – May 2003

Contention Resolution Minutes

11. Cassini agreed to change DSS-45, 25 TCM support in Week 18 to DSS-34, 25. Cassini agreed to change DSS-45, 65, 25 TCM Day support in Week 18 to DSS-34, 65, 25.
12. CLU2 agreed to change DSS-34/43/45 SSO support in Week 18 to DSS-34/43.
13. DSS-45 agreed to delete Maintenance support in Week 18.
14. MGS agreed to change the 34H Map/Beta support in Week 18 to DSS-15, 34, 65.
15. Stardust agreed to change DSS-45, 65 routine support in Week 18 to DSS-15, 65.
16. STF agreed to change routine support at DSS-45, 65 in Week 18 to DSS-15, 65.
- C. DSS-54 has downtime for NSP implementation in Weeks 17 – 20. To accommodate the downtime, CHDR, Maintenance, Genesis, Image, Nozomi, M01O Mapping, Polar, and WIND have agreed to accept the RAPSO recommendations listed below:
 17. CHDR agreed to change the 34B1 routine support in Weeks 18 and 19 to DSS-24, 34, 66.
 18. DSS-54 agreed to delete Maintenance support in Weeks 18 and 19.
 19. Genesis agreed to change 34B1 routine support in Weeks 18 and 19 to DSS-24, 34.
 20. IMAGE agreed to change the 34B1 routine support in Weeks 18 and 19 to DSS-24, 34.
 21. Nozomi agreed to change DSS-24, 54 routine support in Weeks 18 and 19 to DSS-24.
 22. Mars Odyssey agreed to change at DSS-25, 34, 54 Mapping support in Weeks 18 and 19 to DSS-24, 34, 65.
 23. Polar agreed to change 34B1 PB support in Week 19 to DSS-24, 66.
 24. Ulysses DSS-54 routine support in Weeks 18 and 19 change to DSS- 65 D/L only.
 25. WIND agreed to change the 34B1 routine support in Weeks 18 and 19 to DSS-24, 34.
 26. STF agreed to change DSS-25, 34, 54 routine support in Weeks 18 and 19 to DSS-25, 34, 63.

ACE

Afkhami, F. GSFC m/s 428.2
 Sodano, R. J. GSFC m/s 581.0

Canberra Deep Space Communications Complex

Churchill, P. CDSCC
 Jacobsen, R. CDSCC
 O'Brien, J. J. CDSCC
 Ricardo, L. CDSCC
 Robinson, A. CDSCC
 Wiley, B. CDSCC

Cassini

Arroyo, B. 264-235
 Chin, G. E. 230-310
 Doody, D. F. 230-310
 Frautnick, J. C. 230-301
 Gustavson, R. P. 230-301
 Maize, E. H. 230-104
 Mitchell, R. T. (PM) 230-205
 Webster, J. L. 230-104

Chandra

Bucher, S. SAO
 Gage, K. R. SAO
 Lavoie, A. R. (PM) MSFC Org. FD03
 Marsh, K. SAO
 Weisskopf, M. C. (PS) MSFC Org. SD50
 Wicker, D. SAO
 Wright, G. M. MSFC Org. FD03

Dawn

Arroyo, B. 264-235
 Gavitt, S. A. (PM) 264-426

Europa

Arroyo, B. 264-235
 McNamee, J.B. (PM) 301-335
 Simpson, K.A. 301-335

Galileo

Compton, B. 230-102
 Huynh, J. C. 230-102
 Medina-Gussie, M. 301-371
 Pojman, J. L. 238-538
 Theilig, E. E. (PM) 264-525

Genesis

Arroyo, B. 264-235
 Burnett, D. S. CIT 170-25
 Hirst, E. A. 264-570
 Sasaki, C. N. (PM) 264-370
 Sweetnam, D. N. 264-370
 Tay, P. 264-235
 Yetter, K. E. 264-235

Goldstone Deep Space Communications Complex

Holmgren, E. DSCC-25
 Massey, K. DSCC-61
 McCoy, J. DSCC-57
 Millmore, D. DSCC-37

Goldstone Orbital Debris Radar (GODR)

Goldstein, R. M. (PM) 300-227
 Wolken, P. R. 507-105

Goldstone Solar System Radar (GSSR)

Haldemann, A. F. 238-420
 Hills, D. L. 238-420
 Ostro, S. J. (PS) 300-233
 Slade, III, M. A. (PM) 238-420
 Wolken, P. R. 507-105

Gravity Probe-B

Arroyo, B. 264-235
 Keiser, M. (PS) Stanford Univ.
 Shapiro, Prof. I. I. Smithsonian Astrophys. Obsrv.

IMAGE

Abramo, C. A. 507-120
 Burley, R. J. GSFC m/s 632.0
 Green, J. L. GSFC m/s 630

IPN-ISD / General

Doms, P. E. 303-400
 Polansky, R. G. 303-400
 Stelzried, C. T. 303-407
 Weber, III, W.J. 303-400

IPN-ISD / DSMS Engineering

Freiley, A. J. 303-404
 Kimball, K. R. 303-404
 Klose, J. C. 303-404
 Kurtik, S. C. 303-210
 Osman, J. W. 303-210
 Sible, Jr., R. W. 303-404
 Statman, J. I. 303-404

IPN-ISD / DSMS Operations

Almassy, W. T. 502-420
 Berman, A. L. 303-403
 Covate, J. T. 507-120
 Dillard, D. E. 507-120
 Frazier, R. 507-120
 Gillam, I. T. 502-400
 Green, J. C. 507-120
 Hodder, J. A. 303-403
 Knight, A. G. 507-120
 Martinez, G. 507-120
 Nevarez, R. E. 502-400
 Recce, D. J. 303-403
 Roberts, J. P. 502-400
 Salazar, A. J. 303-403
 Schroeder, H. B. 507-120
 Short, A. B. 507-120
 Wackley, J. A. 303-403
 Watzig, G. A. 502-420
 Wert, M. 502-420

IPN-ISD DSMS Plans & Commitments

Abraham, D. S.	303-402
Altunin, V. I.	303-402
Bathker, D. A.	303-402
Benson, R. D.	303-402
Beyer, P. E.	303-402
Black, C. A.	303-402
Cesarone, R. J.	303-402
Chang, A. F.	303-402
Gillette, R. L.	303-402
Holmes, D. P.	303-402
Kwok, A.	303-402
Miller, R. B.	303-402
Moyd, K.	303-402
Peng, T. K.	303-402
Poon, P. T.	303-402
Slusser, R. A.	303-402
Waldherr, S.	303-402
Yetter, B. G.	303-402

IPN-ISD / DSMS RAPSO

Bartoo, R. H.	303-403
Borden, C. S.	301-165
Burke, E. S.	303-403
Hampton, E.	504-102
Kehrbaum, J. M.	301-145J
Kim, K.	504-102
Lacey, N.	504-102
Lineaweaver, S.	504-102
Martinez, K. A.	504-102
Morris, D. G.	303-403
Valencia, J.	504-102
Wang, Y-F.	301-165
Zendejas, S. C.	301-165

ISTP (Cluster II)

Abramo, C. A.	507-120
Christensen, J. L.	GSFC m/s 404.0
Dutilly, R. N.	GSFC m/s 581.1
Gurnett, D.	U. of Iowa
Mahmot, R. E. (PM)	GSFC m/s 444.0
Pickett, J.	U. of Iowa

ISTP (GEOTAIL/POLAR/SOHO/WIND)

Abramo, C. A.	507-120
Alexander, H.	502-320
Bush, R. I.	Stanford Univ.
Carder, M. E.	GSFC 450.C
Dutilly, R. N.	GSFC m/s 581.1
Giles, B. L.	GSFC m/s 692.0
Hearn, S. P.	GSFC m/s 450.C
Mahmot, R. E.	GSFC m/s 444.0
Machado, M. J.	GSFC m/s 428.2
Milasuk-Ross, J.	GSFC m/s 428.5
Miller, K. A.	GSFC m/s 450.C
Nace, E. M.	GSFC m/s 450.8
Odendahl, S. K.	GSFC m/s 581.0

JPL/General

Burgess, L. N.	230-107
Burton, M. E.	169-506
Finley, S. G.	11-116
Gershman, R.	264-440
Holladay, J. A.	303-404
Jurgens, R. F.	238-420
Kahn, P. B.	301-486
Kliore, A. J.	161-260
Kobrick, M.	300-233
Moore, W. V.	161-260
Morabito, D. D.	161-260
Naudet, C. J.	238-600
Robbins, P. E.	161-260
Silva, A.	149-200
Smith, J. L.	301-180
Taylor, A. H.	264-538
Toyoshima, B.	301-276
Winterhalter, D.	169-506
Woo, H. W.	126-110
Yung, C. S.	238-808

Madrid Deep Space Communications Complex

Gimeno, J.	MDSCC
Gonzalez, C.	MDSCC
Martin, A.	MDSCC
Rosich, A.	MDSCC

MAP

Abramo, C. A.	507-120
Coyle, S. E.	GSFC m/s 581.0
Dew, H. C.	GSFC m/s 423.0
Mahmot, R. E. (PM)	GSFC m/s 444.0

Mars Exploration Rover (MER A & B)

Adler, M.	T1723
Arroyo, B.	264-235
Crisp, J. A. (PS)	241-105
Erickson, J. K.	T1723
Ludwinski, J.M.	T1722
Roncoli, R. B.	301-140L
Theisinger, P. C. (PM)	T1722

Mars Express Orbiter

Arroyo, B.	264-235
Horttor, R. L. (PM)	238-540
Thompson, T. W.	300-227

Mars Global Surveyor

Albee, A. (PS)	264-282
Arroyo, B.	264-235
Brower, E. E.	264-235
Thorpe, T. E. (PM)	264-214
Yetter, K. E.	264-235

Mars Program Office

Cutts, J. A.	264-426
Jordan, Jr., J. F.	264-472
McCleese, D. J.	264-426
Naderi, F. M.	264-438
Whetsel, C.	264-426

Mars Reconnaissance Orbiter Project

Arroyo, B. 264-235
 Graf, J. E. (PM) 264-440
 Johnston, M. D. 301-140L
 Lock, R. E. 301-140L

Mars 2001 Odyssey Mission

Arroyo, B. 264-235
 Gibbs, R.G. 264-255
 Harris, J. A. 301-455
 Landano, M. R. (PM) 264-725
 Mase, R. A. 264-380
 Saunders, R. S. (PS) 180-701
 Spencer, D. A. 264-255

Muses-C

Arroyo, B. 264-235
 Mottinger, N. A. 301-125J
 Smith, J.G (PM) 264-828

NASA Headquarters

Costrell, J. A. Code MT
 Geldzahler, B. Code SR
 Hertz, P. Code SR
 Holmes, C. P. Code SR
 Spearing, R. E. Code M-3

NASA/ARC/General

Campo, R. A. ARC 244-14

NASA/GSFC/General

Barbehenn, G. M. GSFC m/s 440.8
 Levine, A. J. GSFC m/s 452.0
 Martin, J. B. GSFC m/s 451.0

NASA/SOMO

Dalton, J. T. GSFC m/s 720.0
 Downen, A. Z. 303-400
 Hall, V. F. JSC Code TG
 Morse, G. A. JSC Code TA
 Thompson, E. W. JSC Code GA

NOZOMI (Planet B)

Arroyo, B. 264-235
 Ryne, M. S. 301-276
 Tay, P. 264-235
 Yetter, K. E. 264-235

PFPD / Mission Management Office

Morris, R. B. 264-235
 Varghese, P. 264-235

Radio Astronomy

Klein, M. J. (PM) 303-402
 Kuiper, T. B. (PS) 169-506
 Martinez, G. 507-120
 Wolken, P. R. 507-105

Reference Frame Calibration

Altunin, V. I. 303-402
 Cangahuala, A. (PM) 301-125J
 Jacobs, C. 238-600

Space Infrared Telescope Facility (SIRTF)

Arroyo, B. 264-235
 Gallagher, D. B. (PM) 264-767
 Kwok, J. H. 264-767

Stardust

Arroyo, B. 264-235
 Duxbury, T. C. (PM) 264-379
 Hirst, E. 264-570
 Ryan, R. E. 301-285
 Tay, P. 264-235
 Yetter, K. E. 264-235

Ulysses / Voyager

Arroyo, B. 264-235
 Brymer, B. F. 264-114
 Cummings, A. C. CIT 220-47
 Hall, Jr., J. C. 264-801
 Massey, E. B. (PM) 264-801
 Medina-Gussie, M. 301-225
 Nash, J. C. 264-114
 Smith, E. J. (PS - ULS) 169-506
 Stone, E.C. (PS - VGR) CIT 220-47
 Yetter, K. E. 264-235

U.S. Space VLBI

Altunin, V. I. 303-402
 Miller, K. J. 264-828
 Preston, R.A. (PS) 238-332
 Smith, J. G. (PM) 264-828

Other Organizations

Crimi, G. F. SAIC
 Laemmel, G. DLR-GSOC
 Wanke, H. DLR-GSOC

Please mark any additions, deletions, or corrections to this distribution list and return to:

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 Jet Propulsion Laboratory
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 Pasadena, CA 91109 / 818-393-3535
 email: David.G.Morris@jpl.nasa.gov

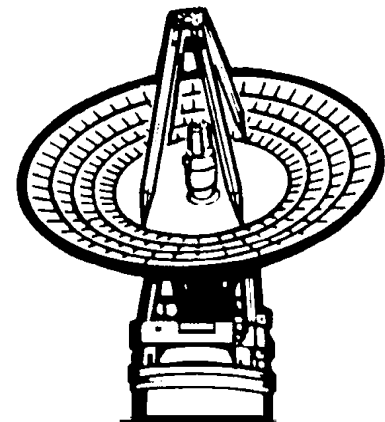


**Joint Users Resource
Allocation
Planning Committee (JURAP)
Resource Allocation Review
April-May 2003**



Jose Valencia

April 18, 2002



JURAP Resource Allocation Review

Agenda

- ◆ **Loading Study**
 - **Periods of Contention**
 - **Proposed Major DSN Downtime Changes**
 - **Events, Analysis and Recommendations**

JURAP Resource Allocation Review

Periods of Contention

Month	Weeks
	2003
April	14 - 17
May	18 - 22

JURAP Resource Allocation Review

Loading Study

Major DSN Downtimes and Proposed NSP Changes in 2003

◆ DSS-14 NSP Implementation

- Was planned for 08/15/02 – 09/27/02 (Weeks 33- 39 / DOY 227- 270)
- Proposed for 04/21/03 – 05/12/03 (Weeks 17- 20 / DOY 111- 132)

◆ DSS-45 NSP Implementation

- Was planned for 10/01/02 – 11/22/02 (Weeks 40- 47 / DOY 274- 326)
- Proposed for 04/07/03 – 05/02/03 (Weeks 15- 18 / DOY 097- 122)

◆ DSS-54 NSP Implementation

- Was planned for 10/01/02 – 11/22/02 (Weeks 40 – 47 / DOY 274- 326)
- Proposed for 04/21/03 – 05/12/03 (Weeks 17 – 20 / DOY 111- 132)

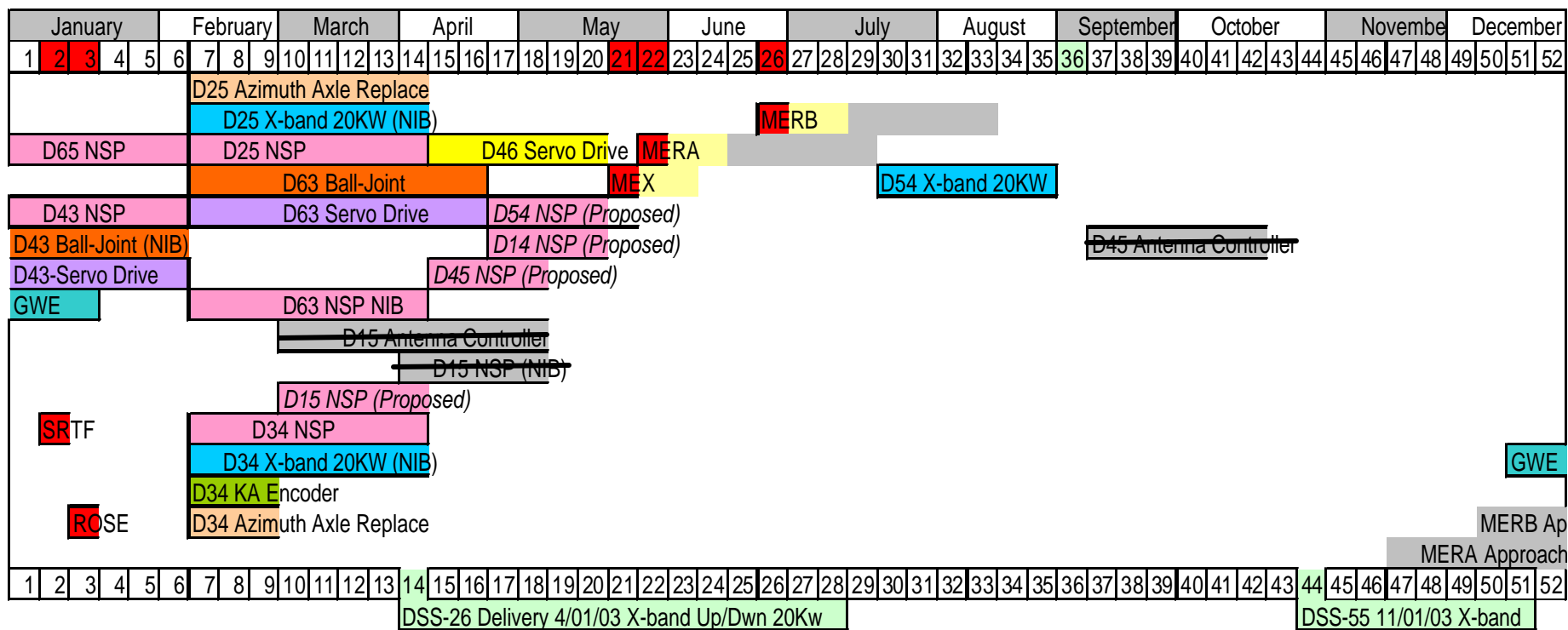


JURAP Resource Allocation Review

Loading Study

Major DSN Downtimes and Proposed NSP Changes

2003



Proposed Times

DSS-14 04/21/03 (Mon) - 05/12/03 (Mon) NSP
DSS-15 03/03/03 (Mon) - 04/02/03 (Wed) NSP
DSS-45 04/07/03 (Mon) - 05/02/03 (Fri) NSP
DSS-54 04/21/03 (Mon) - 05/12/03 (Mon) NSP

04/17/02

JV rev.1 - 5

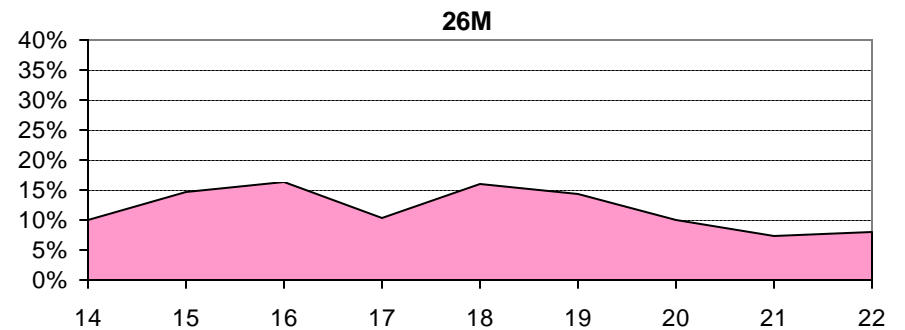
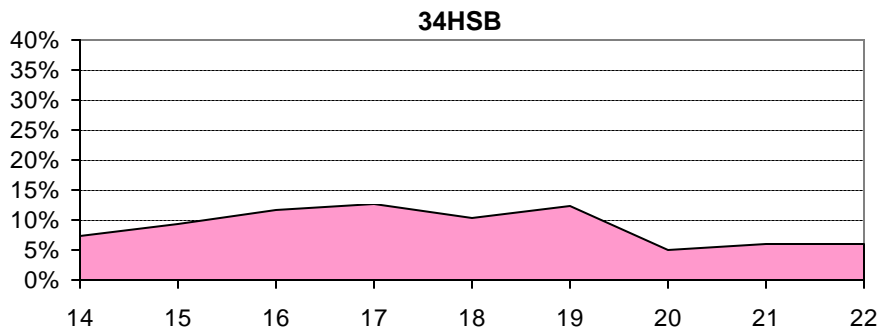
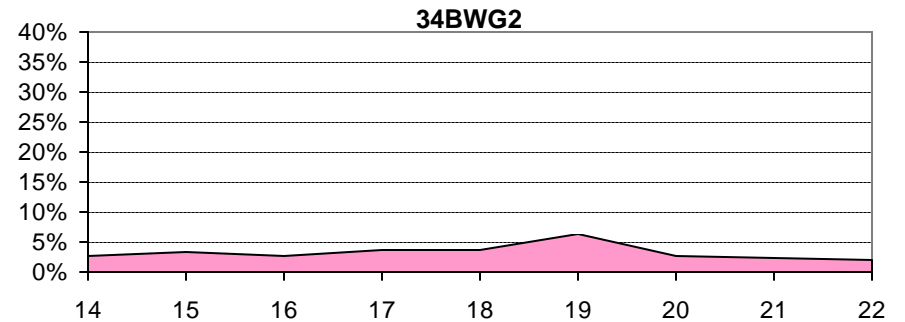
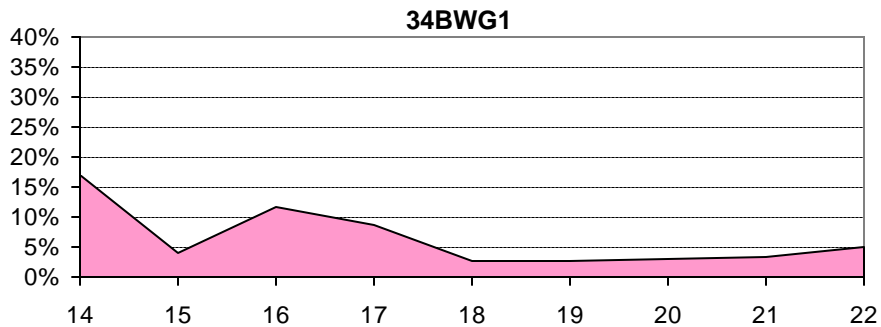
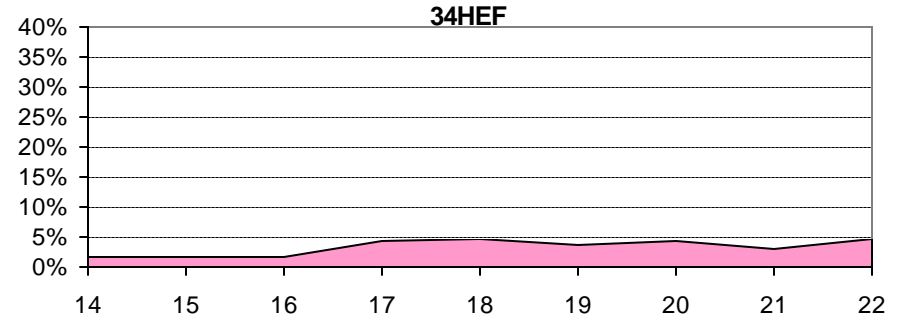
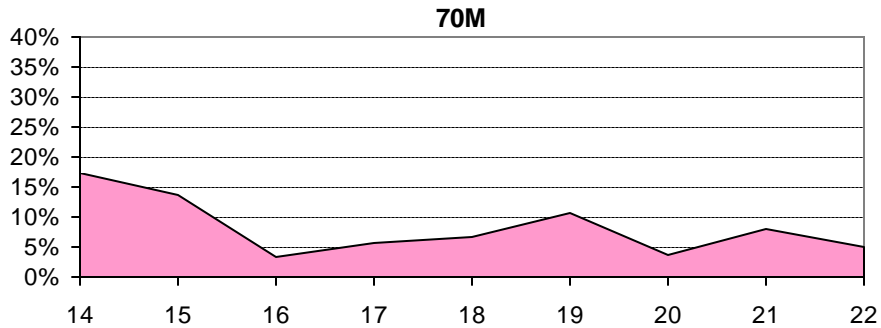
JURAP Resource Allocation Review Analysis and Recommendations

Events, Analysis and Recommendations



JURAP Resource Allocation Review

2003 Weekly Average User Unsupportable Time



JURAP Resource Allocation Review

Analysis and Recommendations

2003 – April (Weeks 14 – 17)

EVENTS

DSS-14 Downtime (NSP) in Weeks 17-20 Proposal
DSS-25 Downtime (NSP) in Weeks 07-14
DSS-34 Downtime (NSP) in Weeks 07-14
DSS-45 Downtime (NSP) in Weeks 15-18 Proposal
DSS-46 Downtime (Servo Drive) in Weeks 15-17
DSS-54 Downtime (NSP) in Weeks 17-20 Proposal
DSS-63 Downtime (Servo Drive) in Weeks 14-16

Cassini TCM support in Weeks 15-17

Genesis Maneuver continuous on the 34B1 in Week 16 on DOY 106-107

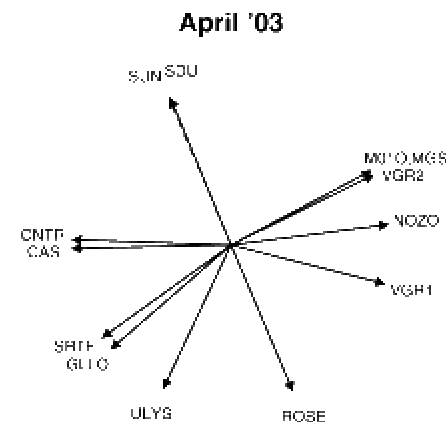
Mars Odyssey Mapping support 2 passes per day

MGS Mapping/Beta support 9 to 10 passes per Week

Rosetta Post Launch support in Week 14 at DSS-54 and NAV

Campaign in Weeks 15-16

SIRTF Post Launch and IOC continuous in Week 14 plus 3 days in Week 15



JURAP Resource Allocation Review

Analysis and Recommendations

2003 – April (Weeks 14 – 17) (continued)

ANALYSIS

- 1. DSS-14 will be down for NSP from Week 17 (Monday DOY 111) through Week 20 (Monday DOY 132) affecting: Galileo, GBRA, Maintenance, MAP, SOHO TSO, Ulysses, and Voyager 1**
- 2. DSS-15 Downtime for Antenna Controller Replacement (ACR) in Weeks 10-18 is deleted and is in re-planning for 2004. DSS-15 NSP Downtime in Weeks 14-18 is re-planned for Weeks 10-14 (Monday DOY 062 through Wednesday DOY 092). DSS-15 ACR downtime in Week 14 (Thursday DOY 093) to Week 18 (Thursday DOY 124) will be returned to Projects/Users.**
- 3. DSS-45 will be down for NSP re-plan from Week 15 (Monday DOY 097) through Week 18 (Friday DOY 122) affecting: Cassini, Cluster, GBRA, Maintenance, MGS Mapping, Stardust and STF**
- 4. DSS-54 will be down for NSP re-plan from Week 17 (Monday DOY 111) through Week 20 (Monday DOY 132) affecting: CHDR, Genesis, Image, Maintenance, M01O, STF, and Wind**

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – April (Weeks 14 – 17) (continued)

RECOMMENDATIONS

DSS-14

- ◆ **DSS Maintenance delete support in Week 17**
- ◆ **GBRA M-Wave Spect at 70M in Week 17 change to DSS-43, 63 and reduce to 2 per week**
- ◆ **GBRA delete Planet R/AST in Week 17**
- ◆ **Galileo routine support at 70M in Week 17 change to DSS-43, 63**
- ◆ **MAP routine support at 70M in Week 17 change to DSS-43, 63***
- ◆ **MAP Maneuver support at 70M in Week 17 change to DSS-43, 63***
- ◆ **SOHO TSO support in Week 17 change to DSS-15 (D/L only)***
- ◆ **Ulysses routine support at DSS-14 in Week 17 move to DSS-15 (D/L only)**
- ◆ **Voyager 1 routine support at DSS-14, 63 in Week 17 change to DSS-63***
- ◆ **Voyager 1 routine uplink support at 70M in Week 17 change to DSS-43, 63***

*** Recommendation accepted**

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – April (Weeks 14 – 17) (continued)

RECOMMENDATIONS

DSS-45

- ◆ Cassini TCM support at DSS-45, 25 in Weeks 15 – 17 change to DSS-34, 25*
- ◆ Cassini routine support at DSS-45 in Weeks 15 change to DSS-25*
- ◆ CLU2 SSO support at DSS-34/45/43 in Weeks 15 - 17 change to DSS-34/43*
- ◆ CLU2 MSO support at DSS-34/45/43 in Week 17 change to DSS-34/43*
- ◆ DSS Maintenance delete support in Weeks 15 - 17
- ◆ GBRA Host Country support in Week 17 move to Week 14
- ◆ MGS Map/Beta support at 34H in Week 17 change to DSS-15, 34, 65*
- ◆ SGP Crust Dyn W-M4 support at DSS-45 in Weeks 15 and 16 move to Weeks 37 and 38
- ◆ Stardust routine support at DSS-45, 65 in Weeks 14 – 17 change to DSS-15, 65*
- ◆ STF routine support at DSS-45, 65 in Weeks 15 – 17 change to DSS-15, 65

* Recommendation accepted

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – April (Weeks 14 – 17) (continued)

RECOMMENDATIONS

DSS-54

- ◆ CHDR routine support at 34B1 in Week 17 change to DSS-24, 34, 66
- ◆ DSS Maintenance delete support in Week 17
- ◆ Genesis routine support at 34B1 in Week 17 change to DSS-24, 34*
- ◆ IMAGE routine support at 34B1 in Week 17 change to DSS-24, 34*
- ◆ Mars Odyssey Mapping support at DSS-25, 34, 54 in Week 17 change to DSS-25, 34, 65*
- ◆ Ulysses routine support at DSS-54, 65 in Week 17 change to DSS-63, 65
- ◆ WIND routine support at 34B1 in Week 17 change to DSS-24, 34*
- ◆ STF routine support at DSS-25, 34, 54 in Week 17 change to DSS-25, 34, 63

*Recommendation accepted



JURAP Resource Allocation Review

Analysis and Recommendations

2003 – April (Weeks 14 – 17) (continued)

User	Resource	Durations		Calibration		April			
		Ave	Min	Pre	Post	14	15	16	17
CAS	DSS-45	8.0	4.0	1.00	0.25	2	1		
CAS TCM	DSS-45,25	9.0	4.0	1.00	0.25		2	3	4
CHDR	34B1	1.0	1.0	1.00	0.25		21	21	21
CHDR	DSS-24,54	1.0	1.0	1.00	0.25	14			
CHDR	DSS-46	2.0	2.0	0.70	0.20	7			
CLU2 1/2/3/4 SSO	DSS-34/45/43	2.0	1.0	0.50	0.25		1		1
CLU2 1/2/3/4 SSO	DSS-34/45/43	2.0	1.0	0.50	0.25			1	
CLU2 1/2/3/4 SSO	DSS-16/27/24/14	2.0	1.0	0.50	0.25	2	2	2	2
CLU2 1/2/3/4 SSO	DSS-46/45/43	2.0	1.0	0.50	0.25	1			
CLU4 1/2/3/4 MSO	DSS-34/45/43	1.5	1.0	0.50	0.25				1
DSN Antenna Cal	DSS-14,43	8.0	8.0			1	1	1	
DSN Clock Syn D-M4	DSS-65	4.0	4.0	1.50	0.50	1		1	
DSS Bearing Mntc	DSS-14	8.0	8.0				1		
DSS Bearing Mntc	DSS-43	8.0	8.0					1	
DSS Bearing Mntc	DSS-63	8.0	8.0						1
DSS Maintenance	DSS-54	6.0	6.0			1	1	1	1
DSS Maintenance	DSS-25	8.0	6.0				1	1	1
DSS Maintenance	DSS-27	8.0	6.0			1	1	1	1
DSS Maintenance	DSS-45	6.0	6.0			1	1	1	1
DSS Maintenance	DSS-24	8.0	6.0			1	1	1	1
DSS Maintenance	DSS-65	6.0	6.0			1	1	1	1
DSS Maintenance	DSS-26	8.0	6.0			1	1	1	1
DSS Maintenance	DSS-46	6.0	6.0			1			
DSS Maintenance	DSS-66	8.0	6.0			1	1	1	
DSS Maintenance	DSS-66	4.0	4.0						1
DSS Maintenance	DSS-43	8.0	8.0			1	1		1
DSS Maintenance	DSS-16	8.0	6.0			1	1	1	
DSS Maintenance	DSS-16	4.0	4.0						1

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – April (Weeks 14 – 17) (continued)

User	Resource	Durations		Calibration		April			
		Ave	Min	Pre	Post	14	15	16	17
DSS Maintenance	DSS-34	6.0	6.0			1	1	1	1
DSS Maintenance	DSS-63	6.0	4.0						1
DSS Maintenance	DSS-14	8.0	8.0			1	1	1	2
GBRA Host Country	DSS-45	12.0	12.0	0.75	0.25				1
GBRA M-Wave Spect	70M	9.0	4.0	0.50	0.50				3
GBRA M-Wave Spect	DSS-14,43	9.0	4.0	0.50	0.50	2	2	2	
GBRA Planet R/Ast	DSS-14	9.0	4.0	0.75	0.50	1	1	1	1
GLLO	70M	8.0	4.0	1.00	0.25				1
GLLO	DSS-14,43	8.0	4.0	1.00	0.25	1	1	1	
GNS	34B1	4.0	4.0	1.00	0.25		3		3
GNS	34B1	8.0	4.0	1.00	0.25		1	5	
GNS	DSS-24,54	4.0	4.0	1.00	0.25	3			
GNS Maneuver	34B1	8.0	4.0	1.00	0.25			6	
GSSR Mercury	DSS-14	5.5	5.5	1.50	0.50	2			
IMAG	34B1	0.8	0.8	1.00	0.25		13	13	13
IMAG	34B1	1.5	1.5	1.00	0.25		1	1	1
IMAG	DSS-24,54	0.8	0.8	1.00	0.25	13			
IMAG	DSS-24,54	1.5	1.5	1.00	0.25	1			
M01O DDOR	DSS-43,34	8.0	4.0	1.00	0.25		1		1
M01O DDOR	DSS-25	8.0	4.0	1.00	0.25		1		1
M01O Map/MGS Map	DSS-14,43,65	8.0	4.0	1.00	0.25	5			
M01O Map/MGS Map	DSS-14,43,45,65	7.0	4.0	1.00	0.25	5			
M01O Mapping	DSS-14,43,45,65	7.0	4.0	1.00	0.25	4			
M01O Mapping	DSS-25,34,54	7.0	7.0	1.00	0.25		12	14	12
MAP.	70M	0.7	0.6	1.25	0.25				4
MAP.	DSS-14,43	0.7	0.6	1.25	0.25	7	7	7	
MAP. Mnvr.	70M	5.0	5.0	1.25	0.25				1
MAP. Mnvr.	70M	3.0	3.0	1.25	0.25				2



JURAP Resource Allocation Review

Analysis and Recommendations

2003 – April (Weeks 14 – 17) (continued)

User	Resource	Durations		Calibration		April			
		Ave	Min	Pre	Post	14	15	16	17
MGS Map/Beta Sup	DSS-14,43	8.0	4.0	1.00	0.25		4	4	
MGS Map/Beta Sup	34H	12.0	4.0	1.00	0.25				10
MGS Map/Beta Sup	DSS-65	7.5	4.0	1.00	0.25		5	5	
ROSE Launch	DSS-54	8.0	4.0	1.00	0.25	7			
ROSE Nav Campaign	DSS-14,25,26	8.0	4.0	1.00	0.25		7	7	
ROSE Nav Campaign	DSS-43,34,45	5.0	5.0	1.00	0.25		2	2	
ROSE Nav Campaign	DSS-65,54	5.0	5.0	1.00	0.25		5	5	
SDU	DSS-45,65	6.0	4.0	1.00	0.25	1	1	1	1
SGP Crust Dyn B-M4	DSS-65	18.0	14.0	1.50	0.50	1			
SGP Crust Dyn W-M4	DSS-45	18.0	14.0	1.50	0.50		1	1	
SOHO	DSS-27	4.0	4.0	0.40	0.20				2
SOHO	26M	9.6	6.0	0.70	0.20	7			
SOHO	26M	1.6	1.6	0.70	0.20	14			
SOHO	DSS-16,27,66	1.6	1.6	0.70	0.20		14	14	6
SOHO	DSS-16,66	9.6	6.0	0.70	0.20		7	7	
SOHO	DSS-16,34,66	4.0	4.0	0.70	0.20				2
SOHO TSO	DSS-14	4.0	4.0	0.45	0.25				5
SOHO TSO	DSS-16	4.0	4.0	0.70	0.20				5
SOHO TSO	DSS-34,66	8.0	4.0	0.70	0.20				10
STF	DSS-45,65	1.0	1.0	0.75	0.25		4	7	7
STF	DSS-25,34,54	1.0	1.0	0.75	0.25		4	7	7
STF IOC	DSS-14,43,54	8.0	1.0	0.75	0.25	21	9		
ULYS	DSS-14	5.0	5.0	1.00	0.25	7	7	7	7
ULYS	DSS-24	5.0	5.0	1.00	0.25	7	7	7	7
VGR1	DSS-14,63	8.0	8.0	0.50	0.25				7
VGR1	DSS-26	8.0	8.0	0.50	0.25	7	7	7	7
VGR1 Routine U/L	70M	2.5	2.5	0.75	0.25				1
VGR1 Routine U/L	DSS-14,43	2.5	2.5	0.75	0.25	1	1	1	



JURAP Resource Allocation Review

Analysis and Recommendations

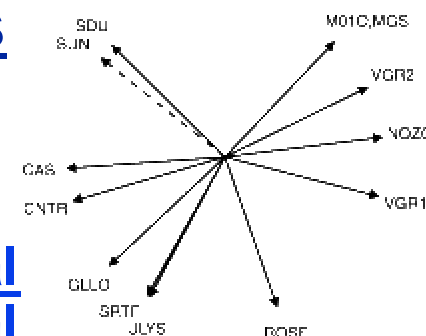
2003 – April (Weeks 14 – 17) (continued)

User	Resource	Durations		Calibration		April			
		Ave	Min	Pre	Post	14	15	16	17
WIND	DSS-24,54	5.0	4.5	1.00	0.25	3			
WIND	34B1	5.0	4.5	1.00	0.25		3	3	3

JURAP Resource Allocation Review Analysis and Recommendations

2003 – May (Weeks 18 – 22)

May '03



EVENTS

DSS-14 Downtime (NSP) in Weeks 18-20

DSS-45 Downtime (NSP) in Week 18 Only

DSS-46 Downtime (Servo Drive) in Weeks 18-20

DSS-54 Downtime (NSP) in Weeks 18-20

Proposal

Proposal

Proposal

Voyager 1 ASCAL support in Week 19

Voyager 1 DTR Array support in Week 18

Voyager 1 MAGROL support in Week 19

Cassini TCM support in Week 18

Cassini TCM Day support in Week 18

ANALYSIS

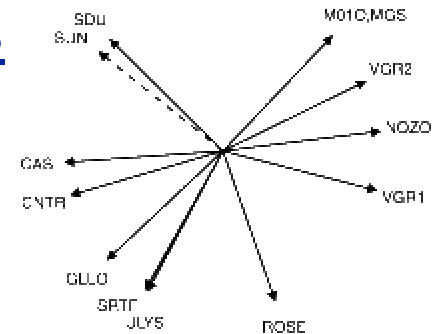
1. **DSS-14 will be down for NSP re-plan from Week 17 (Monday DOY 111) through Week 20 (Monday DOY 132) affecting: Galileo, GBRA, GPB, GSSR, MAP, Maintenance, MEGA, Ulysses and VGR1**

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – May (Weeks 18 – 22)

May '03



ANALYSIS (continued)

- 2. DSS-45 will be down for NSP re-plan from Week 15 (Monday DOY 097) through Week 18 (Friday DOY 122) affecting: Cassini, Cluster, MGS Mapping, Stardust, STF**
- 3. DSS-54 will be down for NSP re-plan from Week 17 (Monday DOY 111) through Week 20 (Monday DOY 132) affecting: CHDR, Genesis, Image, Maintenance, Mapping, M01O, Nozomi, Polar, STF, Ulysses, and Wind**

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – May (Weeks 18 – 22) (continued)

RECOMMENDATIONS

DSS-14

- ◆ **DSS Antenna Cals at 70M in Weeks 18 and 19 change to DSS-43, 63**
- ◆ **DSS Maintenance delete routine and bearing support in Weeks 18,19 and delete one routine maintenance in Week 20 (Monday)**
- ◆ **GBRA M-Wave Spect at 70M in Weeks 18 and 19 change to DSS-43, 63 and reduce to 2 supports per week**
- ◆ **GBRA delete Planet R/AST support in Weeks 18 and 19**
- ◆ **GBRA VLBA SOC-M4 at DSS-14/63 in Week 19 move to Week 20**
- ◆ **Galileo routine support at 70M in Weeks 18 and 19 change to DSS-43, 63**
- ◆ **Gravity Probe B move DSS-14, 12-hour support; DSS-63, 8-hour support; and DSS-43, 6.5 hour support in Week 19 to Week 20***
- ◆ **GSSR delete GODR support at DSS-14/15 in Week 19***
- ◆ **MAP routine support at 70M Weeks 18 and 19 change to DSS-43, 63***
- ◆ **MEGA routine support at 70M in Week 19 change to DSS-43, 63**
- ◆ **Ulysses routine support at DSS-14 in Week 18 and 19 move to DSS-15 (D/L only)**

*** Recommendation accepted**

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – May (Weeks 18 – 22) (continued)

RECOMMENDATIONS

DSS-14 (continued)

- ◆ **Voyager 1 routine uplink support at 70M in Weeks 18 and 19 change to DSS-43, 63***
- ◆ **Voyager 1 ASCAL support in Week 19 change to DSS-15***
- ◆ **Voyager 1 delete DTR Array support at DSS-14/25, 14/26 in Week 18***
- ◆ **Voyager 1 MAGROL support in Week 19 change to DSS-15***

DSS-45

- ◆ **Cassini TCM support at DSS-45, 25 in Week 18 change to DSS-34, 25 ***
- ◆ **Cassini TCM Day support at DSS-45, 65, 25 in Week 18 change to DSS-34, 65, 25 ***
- ◆ **CLU2 SSO support at DSS-34/43/45 in Week 18 change to DSS-34/43***
- ◆ **DSS Maintenance delete support in Week 18**
- ◆ **MGS Map/Beta support at 34H in Week 18 change to DSS-15, 34, 65***
- ◆ **Stardust routine support at DSS-45, 65 in Week 18 change to DSS-15, 65***
- ◆ **STF routine support at DSS-45, 65 in Week 18 change to DSS-15, 65**

*** Recommendations accepted**

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – May (Weeks 18 – 22) (continued)

RECOMMENDATIONS

DSS-54

- ◆ CHDR routine support at 34B1 in Weeks 18 and 19 change to DSS-24, 34, 66
- ◆ DSS Maintenance delete support in Weeks 18 and 19
- ◆ Genesis routine support in Weeks 18 and 19 change to DSS-24, 34*
- ◆ IMAGE routine support at 34B1 in Weeks 18 and 19 change to DSS-24, 34*
- ◆ Nozomi routine support at DSS-24,54 in Weeks 18 and 19 change to DSS-24
- ◆ Mars Odyssey Mapping support at DSS-25, 34, 54 in Weeks 18 and 19 change to DSS-24, 34, 65*
- ◆ Polar PB support at 34B1 in Week 19 change to DSS-24, 66*
- ◆ Ulysses routine support at DSS-54 in Week 18 and 19 change to DSS- 65 (D/L only)
- ◆ WIND routine support at 34B1 in Weeks 18 and 19 change to DSS-24, 34*
- ◆ STF routine support at DSS-25, 34, 54 in Weeks 18 and 19 change to DSS-25, 34, 63

* Recommendation accepted



JURAP Resource Allocation Review

Analysis and Recommendations

2003 – May (Weeks 18 – 22) (continued)

User	Resource	Durations		Calibration		May				
		Ave	Min	Pre	Post	18	19	20	21	22
CAS	DSS-45,25	9.0	4.0	1.00	0.25			1	2	2
CAS TCM	DSS-45,25	9.0	4.0	1.00	0.25	3	4	2		
CAS TCM Day	DSS-45,65,25	8.0	4.0	1.00	0.25	3				
CHDR	34B1	1.0	1.0	1.00	0.25	21	21	21	21	21
CLU2 1/2/3/4 SSO	DSS-34/45/43	2.0	2.0	0.50	0.25		1	1	1	1
CLU2 1/2/3/4 SSO	DSS-16/27/24/15	2.0	1.0	0.50	0.25		2	2	2	2
CLU2 1/2/3/4 SSO	DSS-16/27/24/14	2.0	1.0	0.50	0.25	2				
CLU2 1/2/3/4 SSO	DSS-34/43/45	2.0	1.0	0.50	0.25	1				
CLU4 1/2/3/4 MSO	16/27/24/15	1.5	1.0	0.50	0.25			1		
DSN Antenna Cal	70M	8.0	8.0			1	1	1		
DSN CAT M&E D-M4	15\45,15\65	24.0	24.0	1.50	0.50		1	1		
DSN Clock Syn D-M4	DSS-15\65	4.0	4.0	1.50	0.50			1		1
DSN Clock Syn D-M4	DSS-65	4.0	4.0	1.50	0.50	1				
DSS Bearing Mntc	DSS-14	8.0	8.0			1			1	
DSS Bearing Mntc	DSS-43	8.0	8.0				1			1
DSS Bearing Mntc	DSS-63	8.0	8.0					1		
DSS Maintenance	DSS-54	6.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-25	8.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-27	8.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-15	8.0	6.0				1	1	1	1
DSS Maintenance	DSS-45	6.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-24	8.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-65	6.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-26	8.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-46	6.0	6.0						1	1
DSS Maintenance	DSS-66	8.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-43	8.0	8.0			1		1	1	
DSS Maintenance	DSS-16	8.0	6.0			1	1	1	1	1

JURAP Resource Allocation Review

Analysis and Recommendations

2003 – May (Weeks 18 – 22) (continued)

User	Resource	Durations		Calibration		May				
		Ave	Min	Pre	Post	18	19	20	21	22
DSS Maintenance	DSS-34	6.0	6.0			1	1	1	1	1
DSS Maintenance	DSS-63	10.5	8.0			1	1		1	1
DSS Maintenance	DSS-63	6.0	4.0			1	1	1	1	1
DSS Maintenance	DSS-14	8.0	8.0			2	2	2	2	2
GBRA Host Country	DSS-43	24.0	8.0	0.75	0.25					1
GBRA Host Country	DSS-45	12.0	12.0	0.75	0.25			1		
GBRA M-Wave Spect	70M	9.0	4.0	0.50	0.50	3	3	3	3	3
GBRA Planet R/Ast	DSS-14	9.0	4.0	0.75	0.50	1	1	1		1
GBRA Planet R/Ast	DSS-14	4.0	4.0	0.75	0.50				1	
GBRA RA360 H2O MSR	DSS-63	12.0	4.0	1.50	0.50	2	2			
GBRA VLBA SOC-M4	DSS-14/63	8.0	8.0	1.50	0.50		1			
GLLO	70M	8.0	4.0	1.00	0.25	1	1	1	1	1
GNS	34B1	4.0	4.0	1.00	0.25	3	3	3	3	3
GPB BR071n SOC-M4	DSS-14	12.0	12.0	1.50	0.50		1			
GPB BR071n SOC-M4	DSS-63	8.0	8.0	1.50	0.50		1			
GPB BR071n SOC-M4	DSS-43	6.5	6.5	1.50	0.50		1			
GSSR GODR	DSS-14/15	8.0	4.0	1.50	0.50		1			1
GSSR Mercury	DSS-14	5.5	5.5	1.50	0.50					1
IMAG	34B1	0.8	0.8	1.00	0.25	13	13	13	13	13
IMAG	34B1	1.5	1.5	1.00	0.25	1	1	1	1	1
INTG	DSS-16	5.3	0.5	0.70	0.20	7	7	7	7	7
M01O DDOR	DSS-43,63	8.0	4.0	1.00	0.25		1			
M01O DDOR	DSS-43,34	8.0	4.0	1.00	0.25				1	
M01O DDOR	DSS-25	9.0	4.0	1.00	0.25		1		1	
M01O Map/MGS Map	DSS-25,34,54	7.0	4.0	2.00	0.25					5
M01O Mapping	DSS-25,34,54	7.0	7.0	1.00	0.25	14	12	14	12	9
MAP.	70M	0.7	0.6	1.25	0.25	4	7	7	7	7
MEGA	70M	8.0	4.0	1.50	0.50		1	1	1	

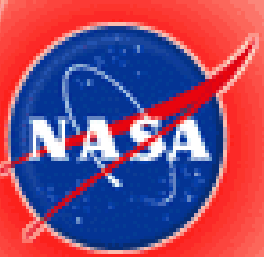


JURAP Resource Allocation Review

Analysis and Recommendations

2003 – May (Weeks 18 – 22) (continued)

User	Resource	Durations		Calibration		May				
		Ave	Min	Pre	Post	18	19	20	21	22
MGS Map/Beta Sup	34H	12.0	4.0	1.00	0.25	9	9	10	9	4
NOZO	DSS-24,54	8.0	2.0	0.75	0.25	2	3	3	3	3
POLR PB	26M	1.0	0.8	0.70	0.20				28	28
POLR PB	DSS-16,27,66	1.0	0.8	0.70	0.20	28	17	17		
POLR PB	34B1	1.0	0.8	0.70	0.20		11	11		
POLR RT	DSS-27,66	2.0	2.0	0.40	0.20		7	7		
POLR RT	26M	2.0	2.0	0.70	0.20				7	7
POLR RT	DSS-16,27,66	2.0	2.0	0.70	0.20	7	7			
SDU	34H	6.0	4.0	1.00	0.25		1	1	1	1
SDU	DSS-45,65	6.0	4.0	1.00	0.25	1				
STF	DSS-45,65	1.0	1.0	0.75	0.25	7				
STF	DSS-25,34,54	1.0	1.0	0.75	0.25	7	14	14	14	14
ULYS	DSS-63,54	10.0	8.0	1.00	0.25	1	1	1	1	1
ULYS	DSS-14,24	10.0	8.0	1.00	0.25	4	4	4	4	4
ULYS	DSS-43,34	4.0	4.0	1.00	0.25	2	2	2	2	
ULYS	DSS-54,65	6.0	4.0	0.75	0.25	2	2	2	2	2
VGR1	DSS-63	4.0	4.0	0.50	0.25					7
VGR1	DSS-26,63	8.0	8.0	0.50	0.25	14	14	14	14	
VGR1	DSS-26	8.0	8.0	0.50	0.25					7
VGR1 ASCAL	DSS-14	2.0	2.0	0.75	0.25		1			
VGR1 DTR Array	DSS-14/25,14/26	7.4	7.4	1.25	0.25	1				
VGR1 MAGROL	DSS-14	7.0	7.0	0.75	0.25		1			
VGR1 Routine U/L	70M	2.5	2.5	0.75	0.25	1	1	1	1	1
WIND	34B1	5.0	4.5	1.00	0.25				3	3
WIND	34B1	4.0	4.0	1.00	0.25	3	3	3		
WIND TCM	DSS-34	3.0	2.0	0.50	0.25			1		



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**Resource Allocation Planning
and Scheduling Office**



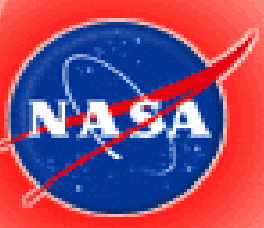
**Jet Propulsion Laboratory
California Institute of Technology**

JOINT USERS RESOURCE ALLOCATION PLANNING MEETING (JURAP)

Action Item Status From 21 August 2001 RARB (Resource Allocation Review Board)

David G. Morris

April 19, 2002



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Resource Allocation Planning
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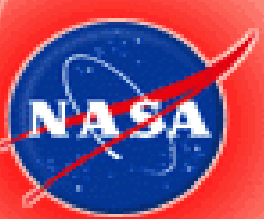
Action Item Summary

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
01	2004	January	MER	J. Erickson	6/1/2002	Open

ACTION: Provide Final Landing Site coordinates (SPK file) for both Rovers one year prior to launch. (Reference A.I. #7 of August 13, 2001 RARB)

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
02	2003	January-December	DSMS P & C	R. Miller	4/18/2002	Open

ACTION: Investigate and Negotiate the feasibility of alternate assets providing current DSN Catalog Maintenance and Enhancement (CAT M&E) radio sources.



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Action Item Summary

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
03	2003	January-December	SGP	N. Lacey P. Wolken	4/18/2002	Closed

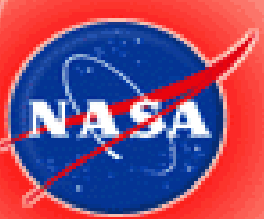
ACTION: As a result of recommending deletion of the entire 2003 request of Space Geodesy Program, provide a listing of opportunities to the project to assist in their re-planning a reduced (hours) experiment.

RESPONSE: (4/16/02) The deletion of the 34H Antenna Controller Replacement tasks in 2003 has created 24 hour support opportunities for SGP as follows:

DSS-15: Weeks 14, 15, 16, 17 and 18 (April 2 through May 6).

DSS-45: Weeks 37, 38, 39, 40, 41, 42 and 43 (September 10 through October 28).

DSS-65: Weeks 37, 38, 39, 40, 41, 42 and 43 (September 10 through October 28).



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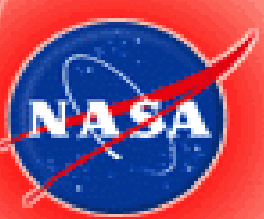
Jet Propulsion Laboratory
California Institute of Technology

Action Item Summary

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
04	2003	January	SIRTF	P. Beyer	4/1/2002	Closed

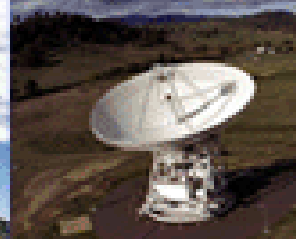
ACTION: Perform telecom analysis to determine the adequacy of DSS-63 supporting spacecraft on day of launch. The expressed concern is that the DSS-63 X-band transmitter may saturate the SIRTF receiver. (DSS-65 has Downtime; DSS-54 is supporting Cassini GWE.)

RESPONSE: (4/4/02) Using 200 watts from DSS 63, the P_{total} into the Observatory will be -78 to -80 dBm. This should pose no risk to the spacecraft. HOWEVER, if the trajectory is anything off nominal, it is not good engineering practice to do a search with the 70M beamwidth. The 34M antenna is much more desirable for contingency purposes and SIRTF should have priority use of DSS-54.



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Action Item Summary

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
05	2003	January-April	DSN	M. Wert	4/1/2002	Closed

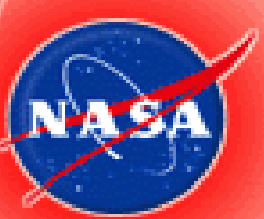
ACTION: Investigate the impact to operations from deleting or reducing the 70m Antenna Calibrations in this period.

RESPONSE: (4/10/02) Minimum support has been analyzed and is provided:

1. GDSCC -- DSS14 can support forecast load if two 4-hr calibration blocks per month are provided Jan-Apr '03;
2. CDSCC -- DSS43 can support at one 4-hr calibration block per month during Jan-Apr '03;
3. MDSCC -- DSS63 can support at one 4-hr calibration block per month during Jan-Apr '03.

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
06	2003	November	MER-A,Odyssey	J. Erickson	5/1/2002	Open

ACTION: MER-A agreed to modify DSN requests for Odyssey and MGS to fulfill required support in weeks 46-47 of November 2003.



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Action Item Summary

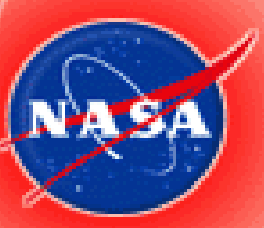
<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
07	2003-2004	December-February	Mars Program	C. Whetsel	5/1/2002	Open

ACTION: Mars Program will evaluate support problems during the mid-December 2003 through end of February 2004 timeframe. All NASA and non-NASA Mars missions requirements will be evaluated and coordinated in light of the NASA Mars mission priorities and provided in time to be addressed at the August 2002 RARB.

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
08	2004	January	Cassini	B. Mitchell	5/1/2002	Open

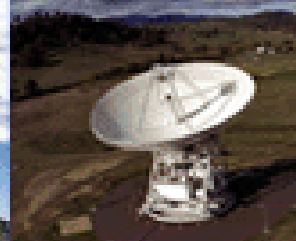
ACTION: Cassini, based upon the recommendations of taking daily 1-4 hour gaps during the Canberra/Madrid overlap in January 2004, will evaluate impact to GWE. In addition, evaluate sliding the entire 40 days for the GWE earlier by a few weeks.

RESPONSE: RAT report is analyzing an alternate experiment period.



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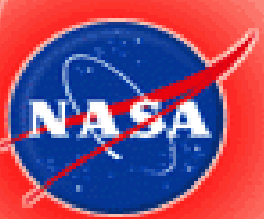
Action Item Summary

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
09	2004	January	MER-B	J. Erickson	4/18/2002	Open

ACTION: Mars Exploration Rover Project will evaluate whether MER-B can reduce coverage during critical MER-A TCMs (4, 5 and 6) in order that the support is used for a MER-A required hot-backup 34m antenna.

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
10	2004	January	DSN	C. Jacobs	4/18/2002	Open

ACTION: Provide analysis of impact (e.g., to MER-B landing accuracy) of moving DSN Clock Sync VLBI out to week 4.



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Jet Propulsion Laboratory
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Action Item Summary

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
11	2004	January	MER	J. Ludwinski	2/26/2002	Closed

ACTION: Provide MER Project Surface Operations Viewperiods for the four primary and two alternate landing sites to RAPSO (J. Kehrbaum).

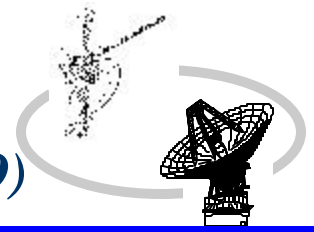
RESPONSE: Complete set of viewperiods were provided 8 March 2002.

<i>AI#</i>	<i>Year</i>	<i>Month(s)</i>	<i>System</i>	<i>Responsible</i>	<i>Due Date</i>	<i>Status</i>
12	2003-2004	November-February	DSMS P & C	R. Miller	5/1/2002	Open

ACTION: Identify Risk Posture for individual mission's key events to plan steps the DSN can do to mitigate foreseeable anomalies (e.g., s/c emergency, station outages, MCD3 contention, etc.).



InterPlanetary Network and Information Systems Directorate
DEEP SPACE MISSION SYSTEMS (DSMS)



Resource Allocation Planning & Scheduling Office (RAPSO)

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE



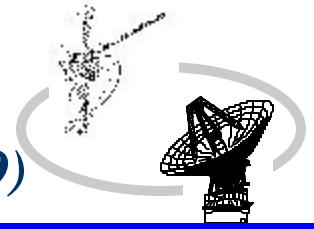
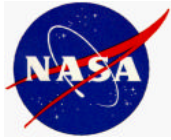
Resource Analysis Team

April 18, 2002

Nap Lacey

For Kevin Kim

JVALENCIA

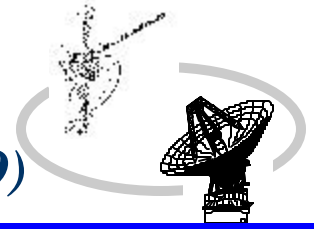
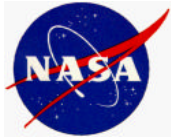


Resource Allocation Planning & Scheduling Office (RAPSO)



◆ RESOURCE NEGOTIATION STATUS

- 2002 WEEKS 23 – 28 (THRU 07/14/2002) WILL BE RELEASED TO THE DSN ON 04/02/2002
- 2002 WEEK 29 - 32 (THRU 08/11/2002) WILL BE RELEASED ON 05/10/2002
- 2002 WEEKS 47 – 50 (THRU 12/15/2002) WILL GO INTO NEGOTIATIONS STARTING 05/25/2002



◆ SPECIAL STUDIES/ACTIVITIES

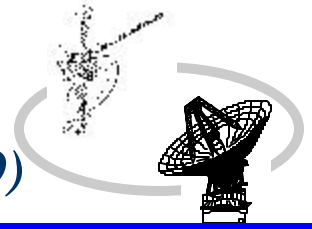
- LUNAR-A LOAD STUDY
- MESSENGER LOAD STUDY
- CASSINI GWE
- GENESIS
- TDRS-J

◆ ON-GOING ACTIVITIES

- MADB/TIGRAS TESTING AND TRAINING
- DOWNTIME REPLANNING
- MID-RANGE SCHEDULE DEVELOPMENT



InterPlanetary Network and Information Systems Directorate
DEEP SPACE MISSION SYSTEMS (DSMS)



JPL

Resource Allocation Planning & Scheduling Office (RAPSO)

[HTTP://RAPWEB.JPL.NASA.GOV](http://rapweb.jpl.nasa.gov)

A decorative curved gradient bar on the left side of the slide, transitioning from light blue at the top to light green in the middle to light yellow at the bottom.

Major DSN Antenna Downtime Status

Jose Valencia
April 18, 2002

4/24/2002

MAJOR DSN DOWNTIMES by YEAR								
Year	Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
2002	DSS 14	70M Servo Drive Replacement	07/15/02	09/27/02	75	29-39	196	270
2002	DSS 16	Servo Drive Retrofit	09/03/02	09/17/02	15	36-38	246	260
2002	DSS 24	NSP Implementation	10/21/02	12/12/02	53	43-50	294	346
2002	DSS 24	NIB - 20 KW X-Band TXR Installation	10/21/02	12/12/02	53	43-50	294	346
2002	DSS 24	NIB - KA-Band Encoder Mech Mod-Kit Installation	10/21/02	11/09/02	20	43-45	294	313
2002	DSS 43	70M Servo Drive Replacement	11/25/02	02/09/03	77	48-06	329	040
2002	DSS 43	NIB - Ball-Joint Pad Refurbishment	11/25/02	02/09/03	77	48-06	329	040
2002	DSS 43	NIB - NSP Implementation	12/02/02	02/09/03	70	49-06	336	040
2002	DSS 43	Hydrostatic Bearing Regrout	11/17/02	11/24/02	8	46-47	321	328
2002	DSS 45	DSS 45 HVAC Upgrade	10/01/02	10/08/02	8	40-41	274	281
2002	DSS 54	NIB - KA Band Encoder Mech Mod Kit Installation	10/01/02	10/20/02	20	40-42	274	293
2002	DSS 54	NIB - Azimuth Axle Replacement	10/01/02	10/20/02	20	40-42	274	293
2002	DSS 65	NSP Implementation	12/02/02	02/09/03	70	49-06	336	040
2003	DSS 15	NIB - NSP Implementation	04/01/03	05/01/03	31	14-18	091	121
2003	DSS 25	NSP Implementation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 25	NIB - 20 KW X-Band TXR Installation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 25	NIB - Azimuth Axle Replacement	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 34	NSP Implementation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 34	NIB - 20 KW X-Band TXR Installation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 34	NIB - KA-Band Encoder Mech Mod-Kit Installation	02/10/03	03/02/03	21	07-09	041	061
2003	DSS 34	NIB - Azimuth Axle Replacement	02/10/03	03/02/03	21	07-09	041	061
2003	DSS 46	Servo Drive Replacement	04/07/03	05/18/03	42	15-20	097	138
2003	DSS 54	20 KW X-Band TXR Installation	07/21/03	08/31/03	42	30-35	202	243
2003	DSS 63	70M Servo Drive Replacement	02/10/03	04/20/03	70	07-16	041	110
2003	DSS 63	NIB - Ball-Joint Pad Refurbishment	02/10/03	04/20/03	70	07-16	041	110
2003	DSS 63	NIB - NSP Implementation	02/10/03	04/06/03	56	07-14	041	096
2004	DSS 14	Antenna Controller Replacement	07/05/04	10/03/04	91	28-40	187	277
2004	DSS 65	Antenna Controller Replacement	05/10/04	06/27/04	49	20-26	131	179

<http://rapweb.jpl.nasa.gov>

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January					February				March				April				May				June				July				August				September				October				November				December											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52					
					D25 Azimuth Axle Replace (NIB)																																																			
					D25 X-band 20KW (NIB)																																																			
D65 NSP					D25 NSP					D46 Servo Drive																																														
					D63 Ball-Joint (NIB)															D54 X-band 20KW																																				
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					D34 KA Encoder (NIB)																																																			
					D34 Azimuth Axle Replace (NIB)																																																			
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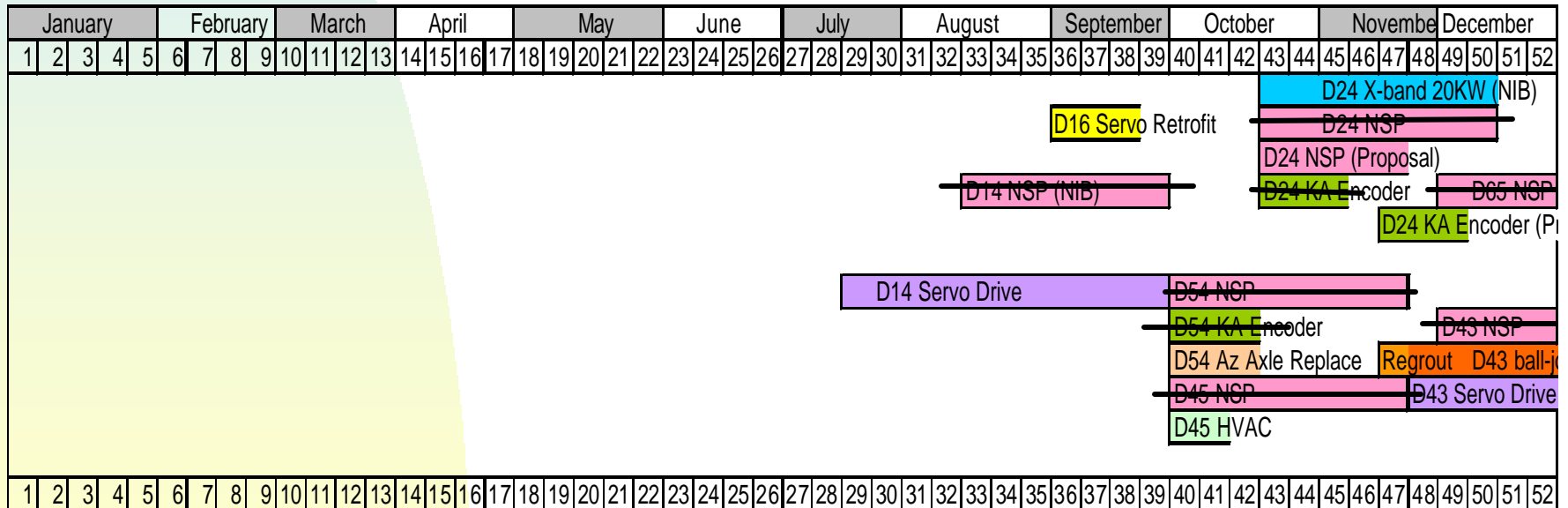
January					February					March					April					May					June					July					August					September					October					November					December				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53							
															D65 Antenna Controller																																												
															D14 Antenna Controller																																												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53							

CHANGES TO ANTENNA DOWNTIME SCHEDULE SINCE MARCH 21 JURAP

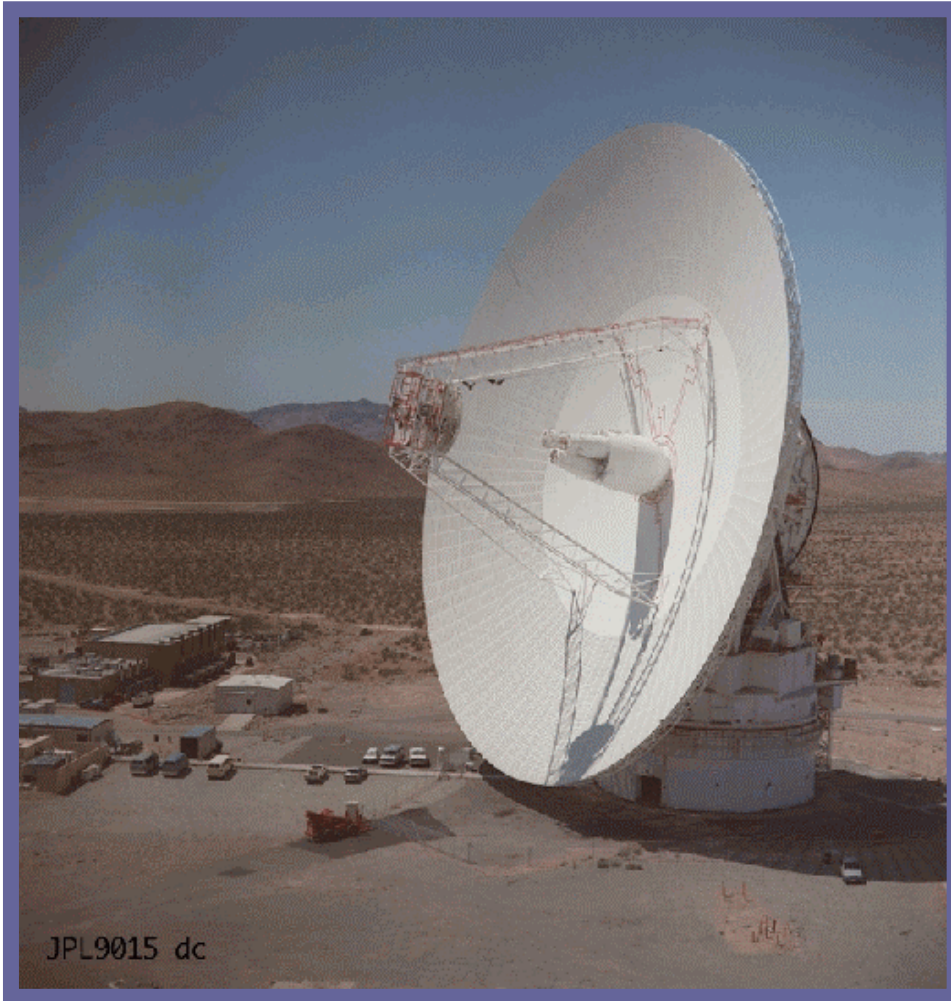
- DSS-14 NSP in 2002 is deleted and proposal for DSS-14 NSP implementation in 2003 is being worked
- DSS-45 NSP in 2002 is deleted and proposal for DSS-43 NSP implementation in 2003 is being worked
- DSS-54 NSP in 2002 is deleted and proposal for DSS-54 NSP implementation in 2003 is being worked
- DSS-54 KA-band Encoder in 2002 is deleted and proposal for implementation in 2003 is being worked
- DSS-15 Antenna Controller Replacement (ACR) in 2003 is deleted and proposal for DSS-15 ACR implementation in 2004 is being worked
- Added DSS-43 Antenna downtime for re-grout work in 2002
- Added DSS-45 downtime for HVAC (Heating Ventilation and Air Conditioning) upgrade

Task Schedule for 2002

1. DSS-16 Servo Drive Retrofit
2. DSS-14 Servo Drive upgrade
3. DSS-24 NSP
 - X-Band 20Kw (NIB)
 - KA-Band Encoder (NIB)
4. DSS-54 Azimuth Axle replacement
5. DSS-43 Ball-joint Pad Refurbishment / re-grout
6. DSS-43 Servo Drive
7. DSS-45 HVAC



Goldstone Solar System Radar



Martin A. Slade

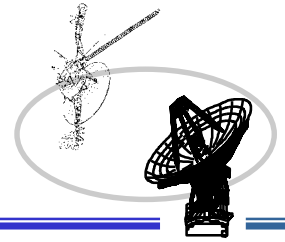
April 18, 2002

NASA Jet Propulsion Laboratory

Joint Users Resource Allocation Planning Committee Meeting



Goldstone Solar System Radar (GSSR)



- On March 12, 2002 and March 16, 2002, the Goldstone Solar System Radar carried out successful observations of near-Earth Asteroid 2000 GD2.
- On April 2, April 3, and April 4, 2002, GSSR radar observations were successfully performed on near-Earth Asteroid 2002 FD6. Thanks to VGR1, Ulysses, and GBRA for giving up time for this short-notice event!
- The first NEA to have a significant chance (1/300) of hitting the Earth was described in the journal *SCIENCE* on April 5, 2002. The JPL press release can be found at: http://www.jpl.nasa.gov/releases/2002/release_2002_79.html with images at: <http://neo.jpl.nasa.gov>
- In another article in *SCIENCE* appearing April 12, 2002, the implications of ~16% of the near-Earth asteroid population being binary systems was discussed. The JPL press release can be found at: http://www.jpl.nasa.gov/releases/2002/release_2002_83.html
Images and animations can be reached through: <http://reason.jpl.nasa.gov>

Joint Users Resource Allocation Planning Committee



RADIO ASTRONOMY AND SPECIAL ACTIVITIES

George Martinez
April 18, 2001

TEMPO

(Time and Earth Motion Precision Observations)

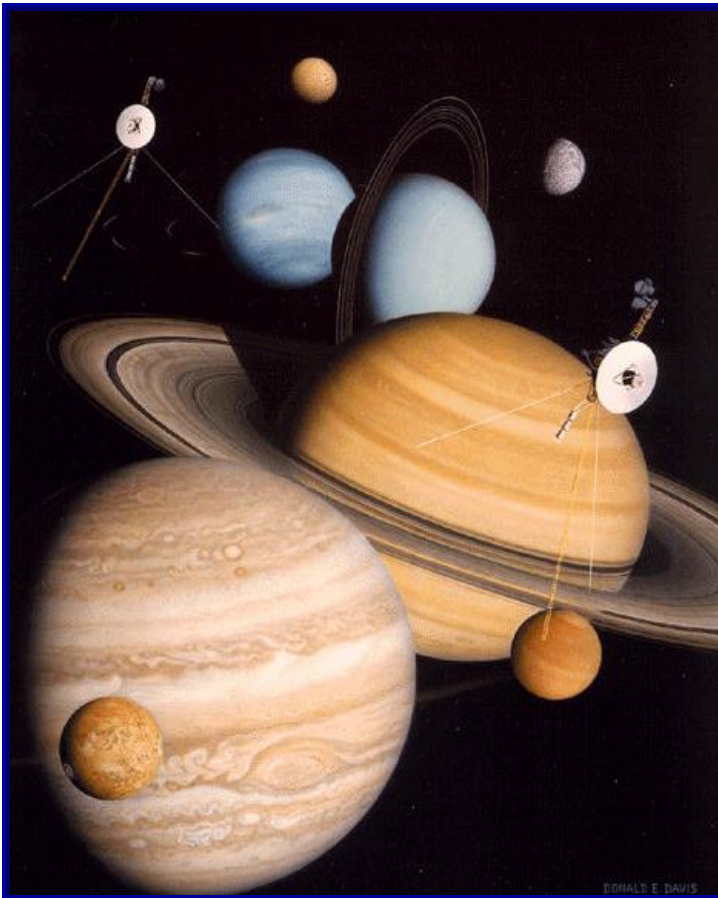
- **Clock Sync**
 - **DOY 067**
 - No problems were reported by either DSS-15 or DSS-65.
 - Data tapes sent to the JPL Correlator for processing.
 - **DOY 081**
 - No problems were reported by either DSS-15 or DSS-65.
 - Data tapes sent to the JPL Correlator for processing.
- **Metrics**
 - 2 observations – 100% of data time utilized.

Cat M&E

- **DOY 076**
 - No problems were reported by DSS-15.
 - DSS-45 reported recorder problems.
 - Data tapes sent to the JPL Correlator for processing.
- **DOY 083**
 - No problems were reported by DSS-15.
 - DSS-65 reported recorder problems.
 - Data tapes sent to the JPL Correlator for processing.
- **Metrics**
 - 98% of data time utilized.

Space Geodesy Program (SGP)

- **Europe-63**
 - The Europe experiments are to determine station coordinates and their evolution in the European geodetic VLBI network with the highest precision possible.
 - EAC problems encountered.
 - Data tapes sent to Bonn Correlator.
- **Metrics**
 - 94% of data time utilized.



VOYAGER

FLIGHT OPERATIONS

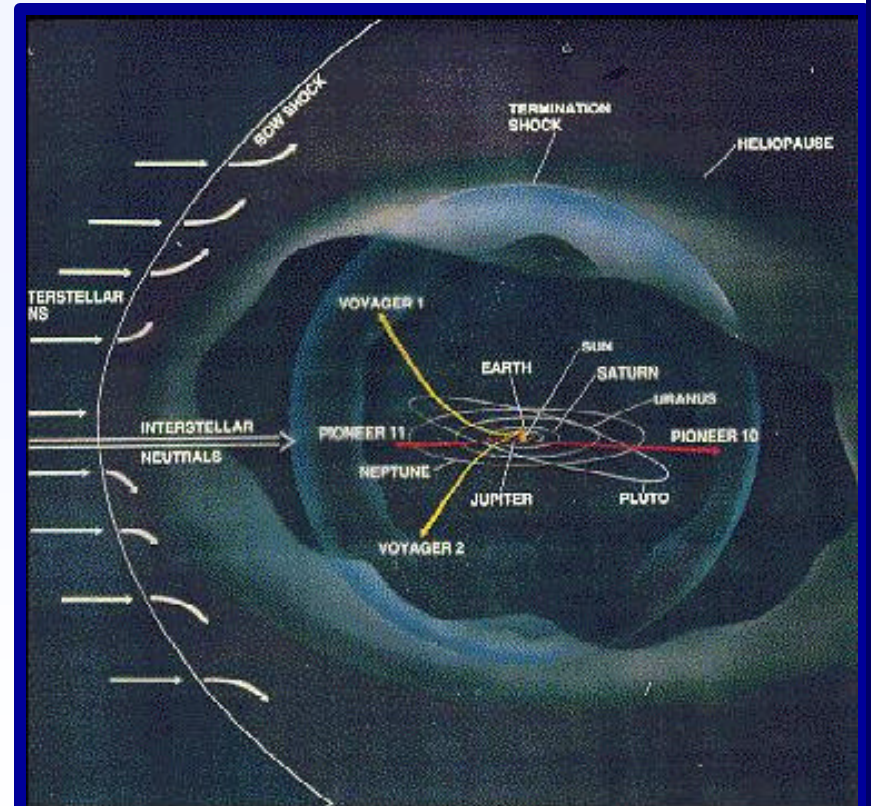
JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

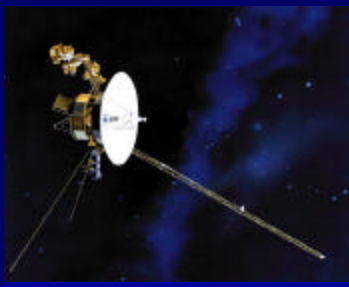
J. C. Hall, Jr.
April 18, 2002

NASA Jet Propulsion Laboratory



<http://voyager.jpl.nasa.gov>





VOYAGER

FLIGHT OPERATIONS



FLIGHT SYSTEM STATUS

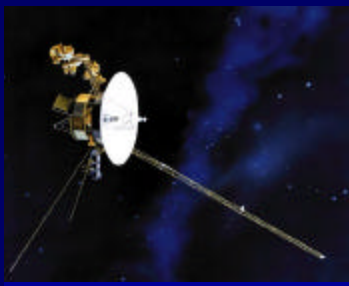
MISSION STATUS

VOYAGER 1

- * HELIOCENTRIC DISTANCE – 84.4 AU, RTLT – 23h14m36s
- SPACECRAFT REMAINS HEALTHY
- MAJOR ACTIVITY: MAGROL, HYBIC SWAP, & ASCALS

VOYAGER 2

- * HELIOCENTRIC DISTANCE – 66.8 AU, RTLT – 18h30m16s
- SPACECRAFT REMAINS HEALTHY
- MAJOR ACTIVITY: PLAYBACK AND MAGROL



VOYAGER

FLIGHT OPERATIONS



GROUND SYSTEM STATUS

(March 16, 2002 – April 12, 2002)

DSN - OVERALL SUPPORT – GOOD

- High power transmitter supported in place of low power transmitter on DOY 086, 087, 091, & 101. Required disabling CPA alarms due to manual configuration of high power transmitter. Low power transmitter could only obtain 11.5 kW when 18 kW is required.

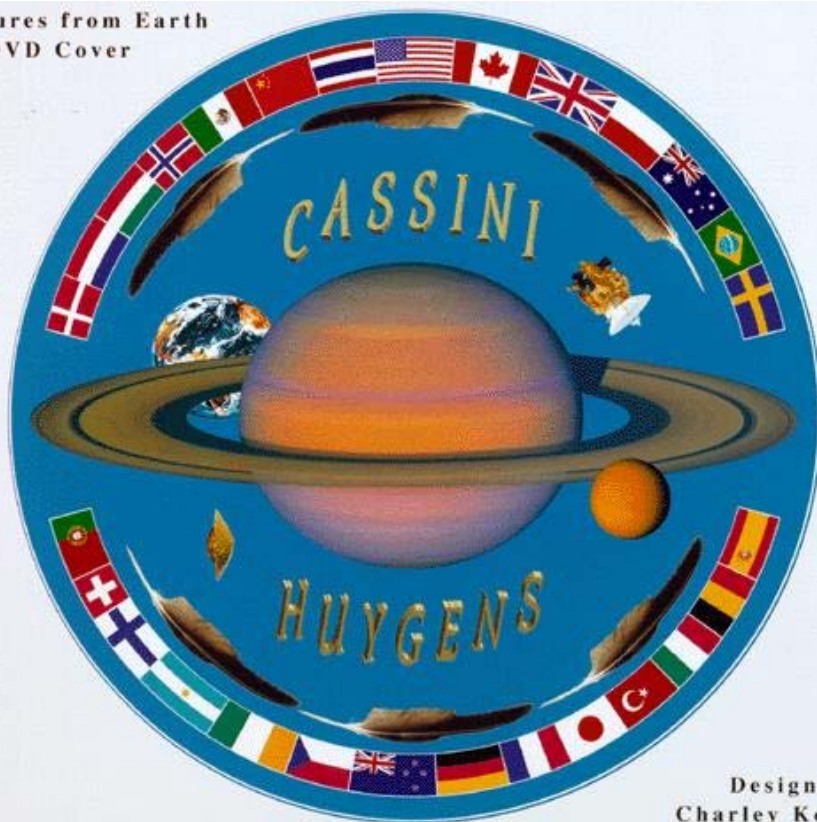
TOTAL SUPPORT TIME, OUTAGE TIME, % of OUTAGE TIME

S/C	SCHED SUPPORT	ACTUAL SUPPORT	70M TIME	SIGNIFICANT OUTAGE TIME	% of OUTAGE TIME
31	420.3	433.9*	153.3	7.9 (2.3)	2.4
32	283.6	283.6	100.6	0.0 (1.3)	0.5

***Thanks to all of the Projects for DSN support during the Voyager 1 HYBIC Swap**

VOYAGER HOMEPAGE - <http://voyager.jpl.nasa.gov>

Signatures from Earth
DVD Cover



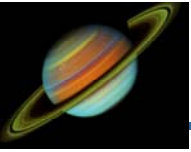
CASSINI

<http://saturn.jpl.nasa.gov/cassini/index.shtml>

Joint Users Resource Allocation Planning (JURAP) Committee Meeting

Dave Doody
April 18, 2002

NASA / Jet Propulsion Laboratory



CASSINI

- In Quiet Cruise Subphase through 8 July 2002
 - S/C remains HGA-to-Earth except for specific short activities
 - Next subphases are Space Science, Approach Science...
- Operations are Basically Nominal
 - Tour Science Planning continues
 - Main Engine TCM-18 executed nominally DOY 093 during “NOPESWAP”
 - The TCM demonstrated use of automation being developed for Tour OTMs
 - Minor S/C instrument anomalies being worked and recovered near real time
 - Further ISS decontamination in progress thru DOY 122.
 - DSN support
 - CSOC “NOPESWAP” was ill-coordinated, and occurred at a bad time near TCM.
 - NOP still (still) being revised!
 - Routine tracking ops are going very well.
 - Minor anomalies being worked in real time, minimal data loss
 - RNG problem continues under investigation
 - Supporting NSP Doppler, RNG demos
 - Demonstrated NSP CMD with AMMOS v26.4/UPL D2 with two DSCCs
 - Hoping to report to next JURAP that NSP CMD is Cassini’s operational system
 - Next milestone is determining whether to U/L CMD Sequence C32 on NSP CMD
 - GDSCC Array capability demo scheduled for DOY 121
- Next Prime Mission Science
 - Superior Conjunction RS experiment 2002 DOY 157 through 187
 - Met with NOPE, RS, Telecom and identified likely cause of missed U/L XFRs in GWE-1
 - GWE#2 2002 DOY 341 through 2003 DOY 016



Mars Global Surveyor
**Flight Operations
Status**

E.E. Brower
April 18, 2002 JURAP

Mars Global Surveyor

AGENDA

- Program / Project Status
- Recent Events/Accomplishments
- Mission Assessment
- Issues

MGS

Mars Global Surveyor

Program / Project Status

Technical

DEC	JAN	FEB	MAR
			

Schedule

DEC	JAN	FEB	MAR
			

Resources

DEC	JAN	FEB	MAR
			

Programmatic

DEC	JAN	FEB	MAR
			

Detailed Description: (for items identified as yellow or red)

Technical:

Schedule:

Resources:

Programmatic:

NOTE: This is a rolling
4-month picture



No current problem
All commitments can be met



Major problem
Identified solution
Commitment is in jeopardy



Major problem
No identified solution
Commitment cannot be met

Mars Global Surveyor Events

- **Last 3 Months:**

- High Rate bias test DEC 10
- Odyssey A/B support end JAN 10
- MPL imaging JAN 11-12
- Resumed ROTOs JAN 21
- Completed 1 year of Extended Mission JAN 31
- Resumed 10h/d DSN tracking FEB 1
- Provided 3 gyro scale factor updates FEB 20-27
- Entered Contingency Mode FEB 27
- Resumed full instrument operation MAR 11
- Transitioned to Beta Supplement MAR 13
- Changed to lowest data rate MAR 20
- Entered Contingency Mode APR 1
- Resumed full instrument operation APR 11

MGS

Mars Global Surveyor Recent Accomplishments

- P 20 Roll Only Targeted Observations (ROTO) were performed successfully bringing the total to 233 since the onset of the extended mission.**
- P Preparations for the Beta Supplement transition were completed (table top Feb. 20) with March 13 commencement in the new spacecraft Relay-16 attitude. One week of medium telemetry rate occurred in the Beta mode and ROTOs were suspended in the first week.**
- P A special non-comm. ROTO was performed on March 10 to demonstrate this capability for Beta Supplement operation.**
- N The Thermal Emission Spectrometer (TES) performed two power restarts to clear sequencing problems introduced by activation of the image motion compensation software intended to provide the highest resolution thermal inertia measurements of MER landing sites.**
- P Two prior gyro scale factor updates were uplinked with substantial improvement in STAREX convergence following ROTOs (<30 minutes).**
- P Power management required adjustment of the Solar Array offset pointing from 25 to 0 deg.**

Codes: P Per Plan
 F Per Plan, but not previously forecasted in this report
 N Not previously planned
 L1,2,3 Late -- 1st, 2nd, 3rd time slipped
 C Canceled -- not needed

MGS

Mars Global Surveyor

Upcoming Events

- N Flight Rule: Stars near uncataloged objects will be removed from weekly swath catalog (not to be used for STAREX convergence).**
- P Complete Mars Beta Supplement transition with non-comm. ROTOs**
- P Prepare risk assessment update for E2 mission**
- P Release Mission and Task Plan updates for E2 mission**
- P End of Extended Mission #1, Begin Extended Mission #2 (E2)**

Codes:

P	Per Plan
F	Per Plan, but not previously forecasted in this report
N	Not previously planned
L1,2,3	Late -- 1st, 2nd, 3rd time slipped
C	Canceled -- not needed

MGS

Mars Global Surveyor Mission Assessment

- Spacecraft is in good health.
- UHF tests on June25-28 to confirmed relay health.
- Expect to fulfill most extended mission objectives (complete MER site coverage may become E2 mission objective).
- Expect to satisfy MER EDL Requirements.
- Chances of operation through 2004 are good.

Mars Global Surveyor Comments

- Radiated FSW patch to correct “feature” in FSW. This software patch will prevent loading the nadir quaternion upon SIS (Starex) reset.
 - When a SIS reset was performed prior to the patch a nadir quaternion (coordinates) reload of the AACCS taking spacecraft attitude more than 5 degrees off sun (16 degrees) when in the Relay 16 mode. Consequently, the sun monitor tripped C-mode entry.

The top left of the slide features a close-up image of the Ulysses spacecraft in orbit around the Sun. The Sun's fiery, orange and yellow surface is visible in the background, and the spacecraft's complex structure, including its solar panels and antennas, is clearly depicted.

ulysses

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

B. Brymer
April 18, 2002

NASA Jet Propulsion Laboratory

A central image shows the Ulysses spacecraft in deep space. The spacecraft is positioned in the upper left, with its instruments pointed towards a large, glowing red sun in the center. Several planets, including Jupiter and Saturn, are visible in the background against the blackness of space.

<http://ulysses.jpl.nasa.gov/>



ULYSSES

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

- **SPACECRAFT OPERATIONS ARE NOMINAL. THE SPACECRAFT IS IN CONTINUOUS VIEW FROM THE NORTHERN HEMISPHERE AND OUT OF VIEW FROM THE SOUTHERN HEMISPHERE.**
- **SPACECRAFT RECONFIGURATIONS AND INSTRUMENT CALIBRATIONS ARE PERFORMED AS REQUIRED.**
- **SPACECRAFT EARTH POINTING MANEUVERS ARE BEING PERFORMED EVERY 4 DAYS.**

ULYSSES

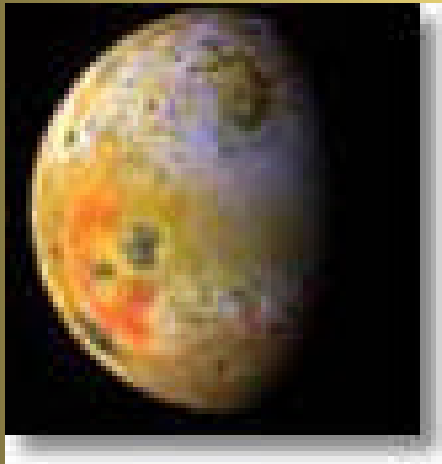
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- **SIGNIFICANT DISCREPANCY REPORTS FOR THIS JURAP PERIOD ARE LISTED BELOW:**
 - **055/13:00 -> 13:20, DSS-54, DR:M100577; CPA4 failed during command transmission with ‘COMMAND REGISTER SHIFT ERROR.’ CPA4 was rebooted and re-validated, and the CMA was reset to make good. Command activity was nominal following recovery.**
 - **057/11:45 -> 13:12, DSS-24, DR:G100855; With antenna on point and following spacecraft track the station was unable to configure the Block V Receiver. This was due to previous failure and troubleshooting was in progress. Several reboots of the complete BVR system were performed to no avail. Problem was eventually isolated to RMT1. Reconfiguration of the RTM systems were done so as to temporarily correct the problem and allow BVR configuration to proceed. While the BVR was inoperable commanding to the spacecraft was successfully performed in the ‘blind pointing’ mode of block command loads. It was decided not to send the daily, immediately executable, Stone command.**
 - **057/15:00 -> 15:17, DSS-54, DR:M100581; Late AOS due to Antenna Elevation Angle Motor #1 controller failure. Defective controller was replaced to make good. 17 minutes of realtime and 34 minutes of playback telemetry were lost. (51 minute total loss).**

Galileo

Journey to Jupiter

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE



Brad Compton
April 18, 2001



NASA Jet Propulsion Laboratory

<http://galileo.jpl.nasa.gov/>



GALILEO MILLENIUM MISSION

ROUTINE ACTIVITIES

- Propulsion maintenance
- DMS conditioning
- Gyro performance test
- Science instrument MROs
- Attitude maintenance turn



GALILEO MILLENIUM MISSION

SIGNIFICANT EVENTS

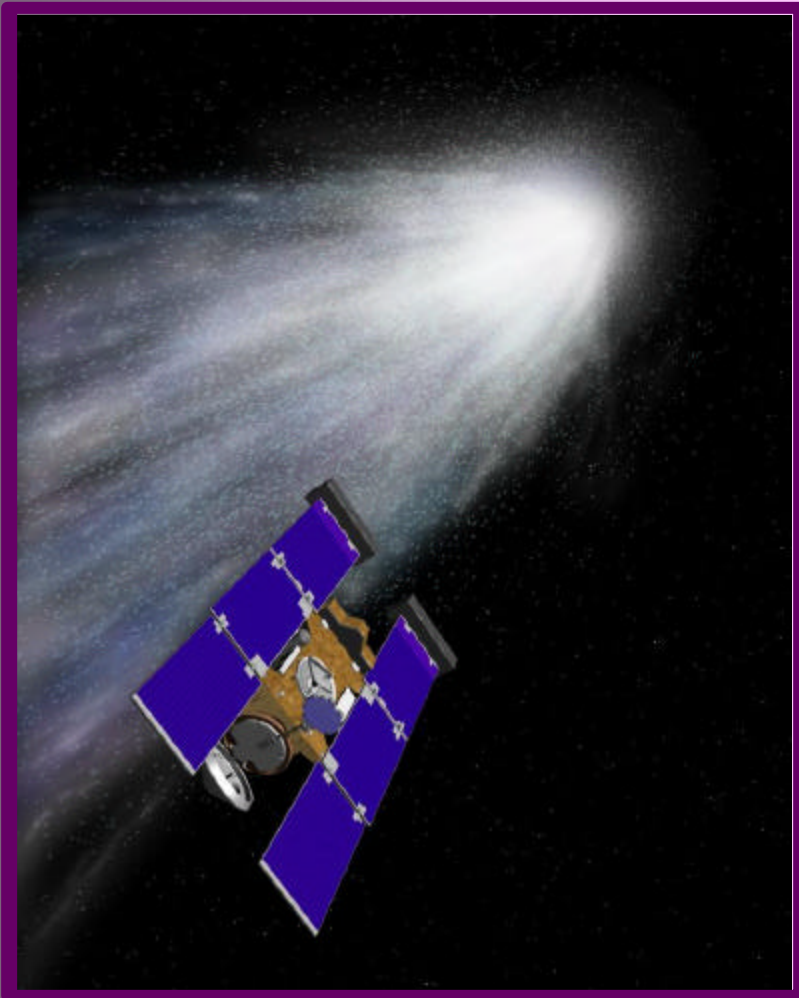
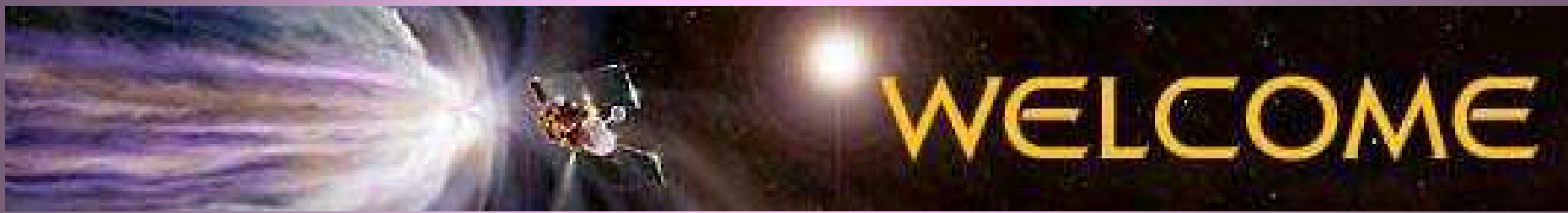
- Completed final SSI and NIMS calibrations
- Completed I-33 playback (ends remote sensing for the Project)
- Magnetometer, Dust Detector and Extreme Ultraviolet data are being collected during the cruise part of this orbit
- Galileo team received a Space Foundation, 2002 Space Achievement Award at the 18th National Space Symposium
- During a routine DMS conditioning, the tape stopped and DMS fault protection was tripped
 - Real-time commands were sent to unlock and move the tape. The tape did move, but did not get into sync and high motor current values were seen. The problem continues to be investigated.



GALILEO MILLENIUM MISSION

PROJECT PLANS

- * Resolve DMS anomaly
- * Continue collecting MAG, DDS and EUV data
- * Continue routine activities
- * Next encounter, Amalthea 34 on 5 November



STARDUST

JOINT USERS

RESOURCE ALLOCATION

PLANNING COMMITTEE

R. E. Ryan

April 18, 2002

NASA Jet Propulsion Laboratory

<http://stardust.jpl.nasa.gov>

STATUS

SPACECRAFT IS HEALTHY (4/18/02)

PRESENTLY 2.80 AU from EARTH

00:46:30 RTLT

2.72 AU from SUN

SPACECRAFT IS IN CRUISE

- **BIT RATE IS AT 252 bps (on HGA/34 HEF)**
- **EARTH RANGE IS DECREASING, WILL GO TO 504 bps NEXT WEEK**
- **WE ARE TODAY, FARTHER FROM THE SUN THAN ANY U.S. SOLAR POWERED SPACECRAFT, AT APHELION OF 2.72 AU (Apr 17-18).**
 - **THE SOLAR PANELS, BATTERY AND POWER SYSTEM ARE PERFORMING VERY WELL**

- **CURRENT ACTIVITIES**
 - **MONITORING THE SPACECRAFT POWER SYSTEM NEAR MAX SOLAR RANGE FOR THIS AND THE NEXT APHELION**
 - **TWO HOUR COMM PERIODS ARE WORKING WELL**
 - **2 HOURS, PLUS RTL, FOR RANGING AND 2-WAY DOPPLER**
 - **PLANNING AND TESTING FOR ENCOUNTER**
 - **UPGRADE OF SPACECRAFT TEST LAB IS PROCEEDING**
 - **FSW UPGRADE OF THE NAV CAM NUCLEUS TRACKING S/W**
- **IPN SUPPORT HAS BEEN GOOD THIS PAST PERIOD**

<http://stardust.jpl.nasa.gov>

UPCOMING EVENTS

INTERSTELLAR DUST COLLECTION 2

SECOND AEROGEL DEPLOY

JULY 27 TO DECEMBER 9, 2002

TCM 7a - SEPTEMBER 18, 2002

ASTERIOD ANNEFRANK FLYBY

NOVEMBER 2, 2002

STARDUST

Report to JURAP

